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Monitoring industrial
research:

The 2008 EU industrial R&D Investment SCOREBOARD

Joint Research Centre
Directorate General Research

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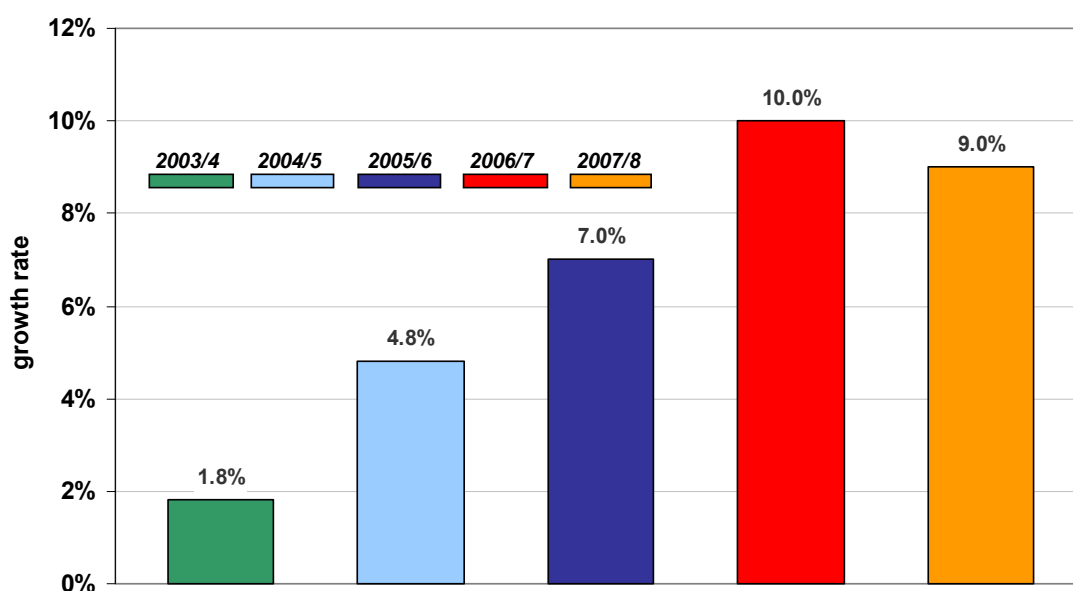
Summary

This report presents the results of the 2008 edition of the "EU Industrial R&D Investment Scoreboard" (the *Scoreboard*). It provides information on the 1000 EU companies and 1000 non-EU companies investing the largest sums in R&D.

Worldwide corporate R&D investment growth remains high (9%).

The 2008 *Scoreboard* shows that all 2000 companies increased R&D investments by 9% in 2007/8, compared to 10% in past year's *Scoreboard* and 7% in the year before (Figure S1).

Figure S1. Growth of R&D investment the *Scoreboard* companies



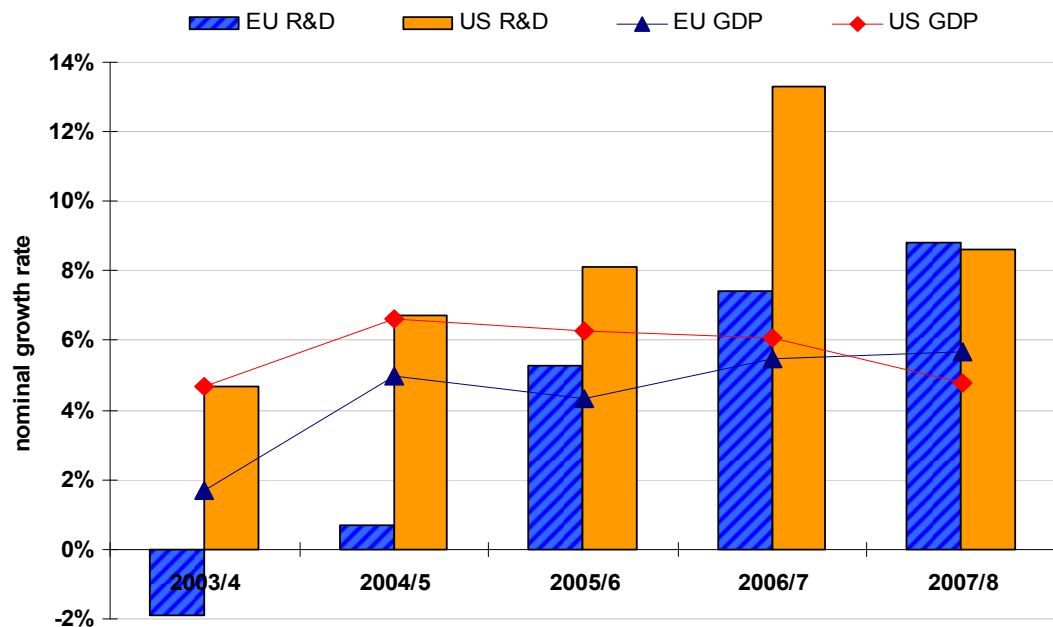
Source: The EU Industrial R&D Investment Scoreboards (of 2004, 2005, 2006, 2007, 2008)
European Commission, JRC/DG RTD.

R&D investment growth by EU *Scoreboard* companies is ahead of that by their US counterparts.

After many years in which the growth of R&D investment by EU companies lagged behind US companies, this year's *Scoreboard* shows that the R&D investment growth of EU companies has been higher than that of US companies. It also outpaces that of Japanese companies for the third straight year. Also, this is the fifth year running in which the growth rate by EU companies has beaten the previous year's figure.

This year's *Scoreboard* shows a considerable fall in the US R&D investment growth rate (Figure S2).

Figure S2. Growth of R&D investment in the Scoreboard and GDP growth



Source: The EU Industrial R&D Investment Scoreboards (of 2004, 2005, 2006, 2007, 2008) and Eurostat

Note: For samples of comparable companies

GDP growth calculated from nominal GDP figures

European Commission, JRC/DG RTD.

Microsoft has taken over the first position as global top R&D investor from Pfizer.

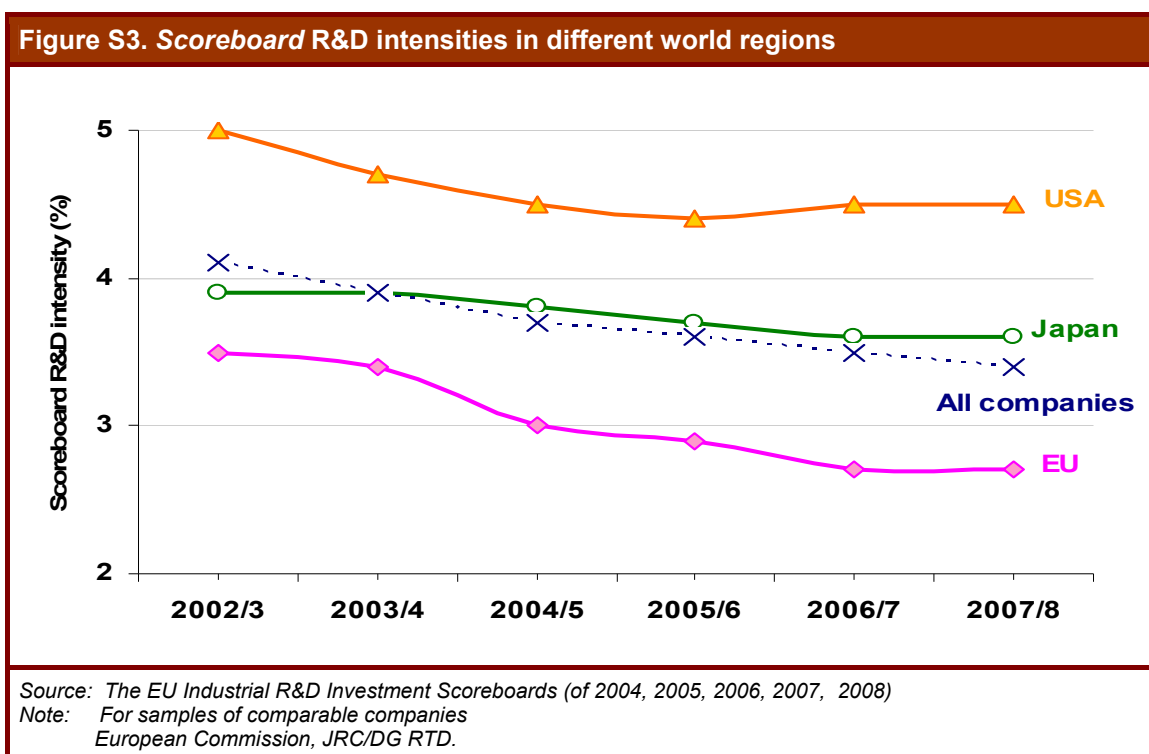
The regional distribution of the companies in the top 50 has not changed. The EU accounts for 18 companies among the top 50 R&D investors, the US for 20 and Japan for 9. Five out of the top 10 R&D investors are from the US, of which three are the world's top R&D investors: Microsoft (€5.58 bn), General Motors (€5.54 bn) and Pfizer (€5.53 bn).

Nokia has taken over from Daimler as the highest ranking EU company.

There are three EU companies among the top 10 R&D investors: Nokia, the top EU company, invested €5.28 bn, Volkswagen, €4.92 bn and Daimler, €4.89 bn. Among the top 10, there is one company from Japan (Toyota Motor, €5.45 bn) and one from Switzerland (Roche, €5.01 bn).

R&D intensities are no longer falling as seen in previous years.

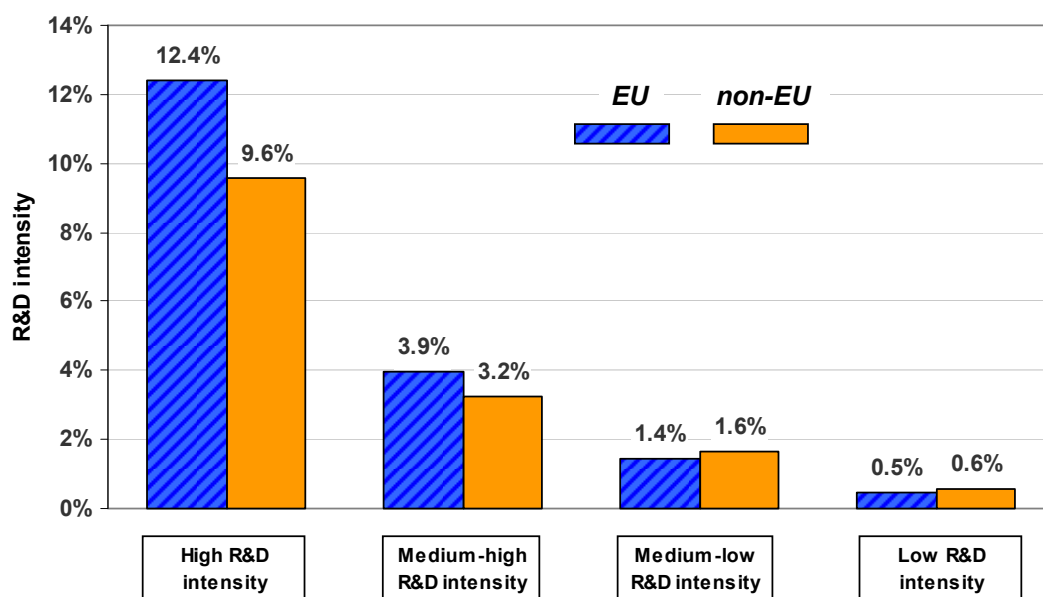
R&D intensities of *Scoreboard* companies are no longer falling as seen in previous years but have stabilised at 2.7% for the EU and 3.8% for the non-EU companies (Figure S3).



Sector by sector, the R&D intensities of EU companies is similar or greater

Sector by sector, the R&D intensities of EU companies is similar or greater than in non-EU companies (Figure S4). Particularly, companies in high R&D intensity sectors in the EU have a significantly higher R&D intensity (12.4%) than companies in the same sectors in the rest of the world (9.6%).

Figure S4. R&D intensities by group of sectors



Note 1: Sectors are split into four groups according to the R&D intensity of the sector worldwide:

High R&D intensity sectors (intensity above 5%) include e.g. Pharmaceuticals & biotechnology; Health care equipment & services; Technology hardware & equipment; Software & computer services.

Medium-high R&D intensity sectors (between 2% and 5%) include e.g. Electronics & electrical equipment; Automobiles & parts; Aerospace & defence; Industrial engineering & machinery; Chemicals; Personal goods; Household goods; General industrials; Support services.

Medium-low R&D intensity sectors (between 1% and 2%) include e.g. Food producers; Beverages; Travel & leisure; Media; Oil equipment; Electricity; Fixed line telecommunications.

Low R&D intensity sectors (less than 1%) include e.g. Oil & gas producers; Industrial metals; Construction & materials; Food & drug retailers; Transportation; Mining; Tobacco; Multi-utilities.

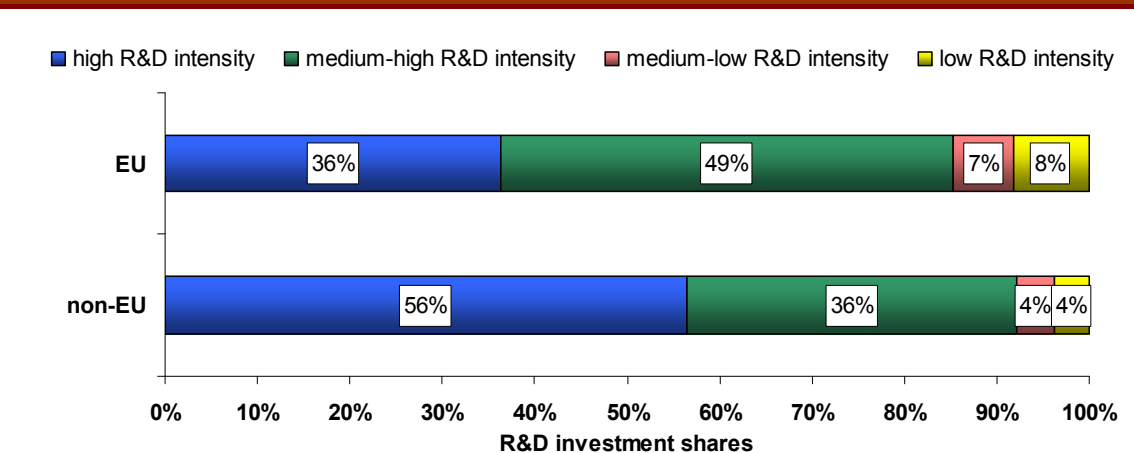
*Note 2: For samples of comparable companies
European Commission, JRC/DG RTD.*

Source: The EU Industrial R&D Investment Scoreboard 2008

The R&D intensity of EU companies is lower than that of non-EU companies because of the weight of the high R&D intensity sector group.

The weight of the high R&D intensity sector group is far greater amongst non-EU companies than amongst the EU ones (Figure S5) and this explains, to a large extent, the higher aggregate R&D intensity of non-EU companies.

Figure S5. R&D investment shares by sector group



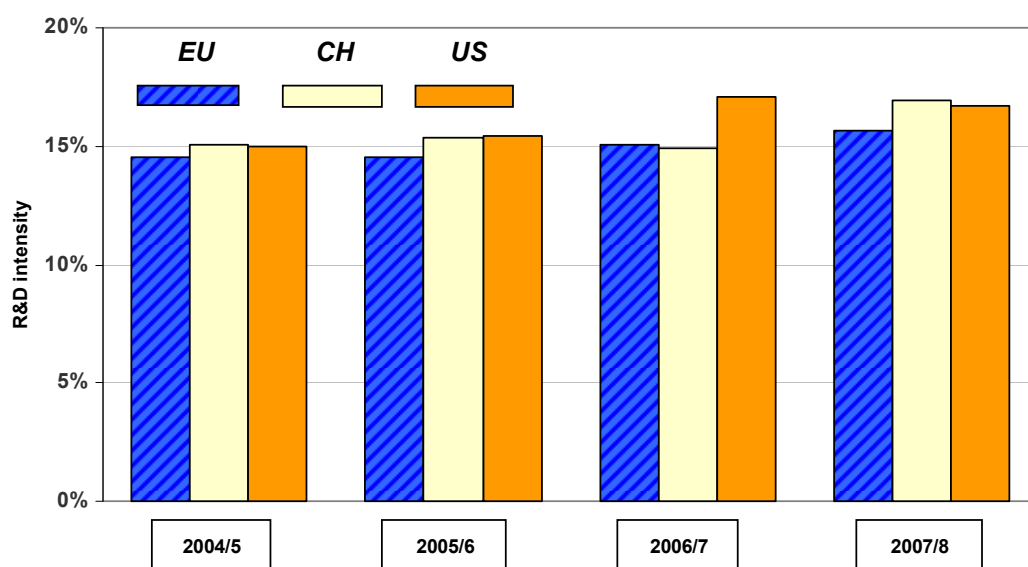
Source: *The EU Industrial R&D Investment Scoreboard 2008*

Note: *For samples of comparable companies*
European Commission, JRC/DG RTD.

The pharmaceuticals and biotechnology sector remains the top R&D investor worldwide.

The pharmaceuticals & biotechnology sector again holds the top position in R&D investments and accounts for 19.2 % of the overall R&D investments made by *Scoreboard* companies. Several pharmaceutical companies showed a particularly strong increase in R&D investment (partly due to acquisitions): e.g. Schering-Plough (+33.7%), AstraZeneca (+29.8%), Roche (+25.9%) and Novartis (+21.1%). The increase in R&D intensities of US companies observed last year has been partly reversed. This is illustrated in Figure S6, that includes also Swiss companies for comparison.

Figure S6. R&D intensities in pharmaceuticals & biotechnology



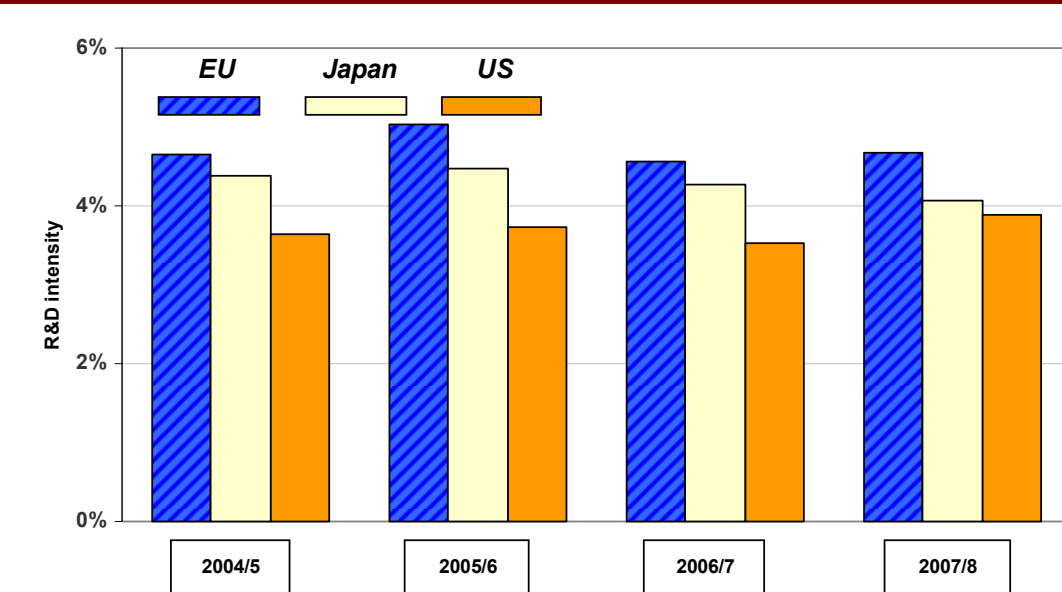
Source: The EU Industrial R&D Investment Scoreboards (of 2004, 2005, 2006, 2007, 2008)

Note: For samples of comparable companies
European Commission, JRC/DG RTD.

Companies in the automobiles & parts sector have stepped-up their R&D investment.

The automobiles & parts sector is the biggest sector in terms of R&D investment in the EU. This year's R&D investment growth (6.9%) was considerably above the three year average annual growth rate (4.9 %). General Motors had the biggest increase in R&D (22.7%) but Volkswagen and Toyota Motor also raised substantially their R&D (16.1% and 9.6% respectively). US companies appear to be slowly closing the gap with EU companies in terms of R&D intensity (Figure S7).

Figure S7. R&D intensities in automobiles & parts

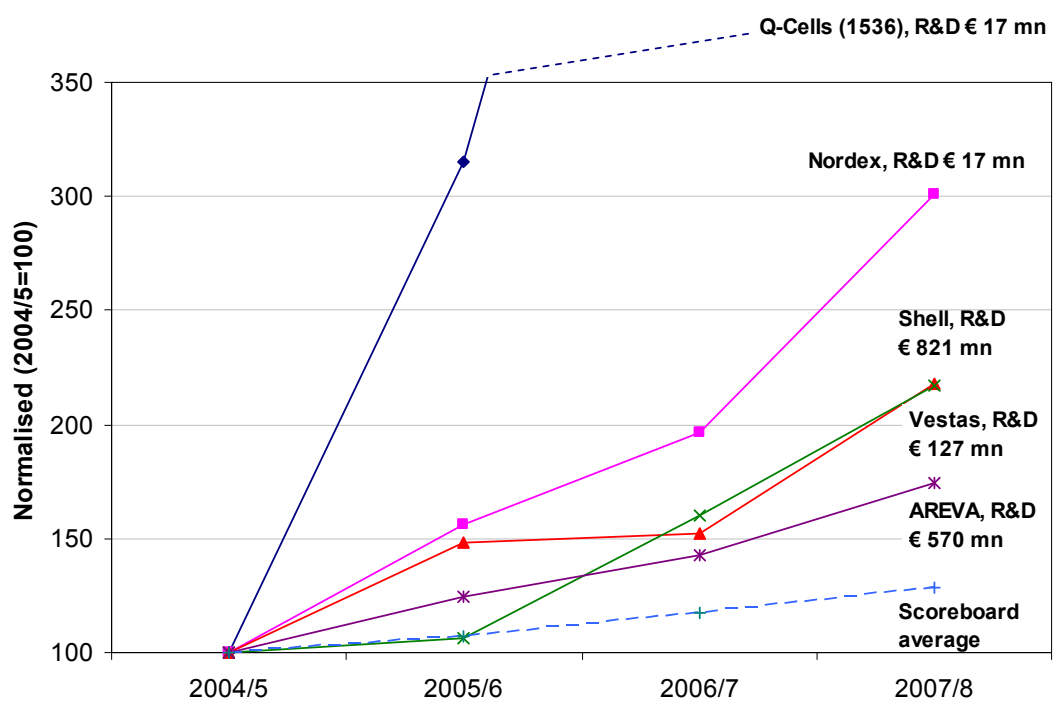


Source: *The EU Industrial R&D Investment Scoreboards (of 2004, 2005, 2006, 2007, 2008)*
European Commission, JRC/DG RTD.

Companies in the energy field are increasing R&D investments sharply

Over the past three years, some large companies in the energy field showed high annual R&D growth rates increasing their R&D investment several times (Figure S8). For example, Royal Dutch Shell increased R&D by 2.2 and AREVA by 1.7 times over this period. Even higher growth rates are found amongst some companies in the field of alternative energies. In wind technology, Vestas Wind Systems increased R&D by 2.2 times and Nordex by 3 times. In the solar photovoltaic field, Q-Cells has entered the *Scoreboard* in 2008 for the first time after increasing R&D by 15.4 times in three years.

Figure S8. R&D investment growth of some companies in the field of energy



Source: *The EU Industrial R&D Investment Scoreboard 2008*
European Commission, JRC/DG RTD.

1. Introduction

The 2008 EU Industrial R&D Investment Scoreboard¹ (the *Scoreboard*) provides information on the 1000 EU companies² and 1000 non-EU companies investing the largest sums in R&D in the last reporting year (i.e. 2007/8). The *Scoreboard* includes data on R&D investments along with other economic and financial data from the last four financial years.

The data for the *Scoreboard* are taken from companies' publicly available audited accounts. In most cases, these accounts do not include information on the place where R&D is actually performed, consequently the approach taken in the *Scoreboard* is to attribute each company's total R&D investment to the country in which the company has its registered office³.

Compared with the last edition, the dataset of this year incorporates the following changes in number of companies (*last year figures in parentheses*):

EU sample

- 799 listed (826); 201 unlisted (174)
- 289 UK (321); 189 Germany (167); 113 France (114); etc.
- 153 newcomers and leavers

Non-EU sample

- 956 listed (956); 44 unlisted (44)
- 544 US (563); 244 Japan (237); 42 Switzerland (39); 41 Taiwan (44); etc.
- 88 newcomers and leavers

This report presents the key figures of the related to R&D of the world's top investors listed here. The overall levels of R&D investment, the performance of the EU companies, and the main changes that took place last year are examined in chapter 2. The performance of individual companies among the top R&D investors, in particular those undergoing significant R&D growth, is outlined in chapter 3. Chapters 4 and 5 give an overview of the company data aggregated by industrial sectors and world regions, with comparisons between the EU companies and their main competitors.

In order to ensure a uniform basis for comparisons, chapters 4 and 5 consider companies with similar levels of R&D investment. This year's *Scoreboard* includes 1402 companies with R&D investments of over €24.21 million. Taking

¹ The EU Industrial R&D Investment Scoreboard is published annually by the European Commission (JRC-IPTS/DG RTD) as part of its Industrial Research Investment Monitoring and Analysis activity (IRMA). Company data were collected by Company Reporting Ltd.

² The term EU company concerns companies whose ultimate parent has its registered office in a Member State of the EU. Likewise, non-EU company apply when the ultimate parent company is located outside the EU (see also the glossary and definitions in Annex 1 as well as the handling of parent companies and subsidiaries).

³ The registered office is the company address notified to the official company registry. It is normally the place where a company's books are kept.

this threshold yields a comparable group of the world's top R&D investors comprising the top 402 from the EU together with the top 1000 non-EU companies (see Box 1).

The Annex 1 provides background information and methodological details about how the *Scoreboard* is prepared.

The full methodological approach of the Scoreboard, its scope and the limitations are described in Annex 2.

Annex 3 lists the EU1000 and non-EU1000 companies ranked by their level of R&D investment. The complete data set is freely accessible online at: <http://iri.jrc.ec.europa.eu/>.

Box 1 : Methodological Caveats

When using the *Scoreboard* for comparative analyses, a number of factors potentially affecting the interpretation of the figures should be borne in mind. Please refer to Annex 2 for a full explanation of the methodological aspects. In particular, the following points should be noted:

- *Scoreboard* figures are nominal and expressed in Euros with all foreign currencies having been converted at the exchange rate prevailing on 31 December 2007. Financial indicators consolidated from companies' activities in different currency areas are influenced by fluctuations in exchange rates. This has an impact on firms' relative positions in the world rankings based on these indicators. Moreover, the ratios between indicators or the growth rate of an indicator may be under- or over-estimated. For example, the euro appreciated significantly against the USA dollar and the pound sterling over the period with which we are concerned, rising from \$1.32 to \$1.46 and from £0.67 to £0.73. This means that the *Scoreboard* underestimates the R&D growth rate of EU companies based in the euro area and operating in the US. Conversely the growth rate of US companies also operating in the euro area is overestimated.
- EU and non-EU groups include companies with different volumes of R&D investment. This year, the R&D investment threshold for the EU group is €4.27 million and that for the non-EU group €24.21 million. In order to compare EU and non-EU companies on a similar basis, it is preferable to consider only EU companies with R&D above the non-EU threshold. This comprises a group of 402 EU companies, representing approximately 95% of total R&D investment by the EU group. Using the non-EU threshold yields a sample of the world's top 1402 R&D investors that can be used for comparative purposes.
- Growth in R&D can be organic, due to acquisitions or a combination of the two, consequently, mergers and acquisitions may explain sudden changes in R&D growth rates and rankings of specific companies.
- Other important factors to take into account are the difference in the various countries' (or sectors') business cycles that may have a significant impact on companies' investment decisions as well as the first time / increasing adoption of the International Financial Reporting Standards (IFRS)⁴.

⁴ Since 2005, the European Union requires all listed companies in the EU to prepare their consolidated financial statements according to IFRS (see: EC Regulation No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002R1606:EN:HTML>).

2 Overall R&D investment trends

This chapter provides an overview of changes of main indicators of *Scoreboard* companies in the EU and non-EU groups. It is important to remind that a number of factors may affect those changes and particularly the fluctuation of exchange rates (see Box 1 in Chapter 1 and methodological notes in Annex 2). Please bear also in mind that the different editions of the *Scoreboard* are not directly comparable because the year-on-year change of composition of the sample of companies, i.e. due to newcomers and leavers⁵.

Key points

- Corporate investment in R&D continued to grow substantially in 2007/8. Altogether, the 2000 *Scoreboard* companies invested €379.3 billion in the last financial year. Aggregate R&D growth was 9.0%, slightly lower than the 10.0% reported in last year's *Scoreboard* (see Table 1).
- The 1000 EU companies in the *Scoreboard* increased their R&D investment by 8.6%, an improvement on last year's 7.4% growth. At 9.2 %, the R&D investment growth of the 1000 companies in the non-EU list was less pronounced than last year's 11.1 % growth. Therefore, the difference in growth of R&D investment between the EU and non-EU groups of companies has decreased significantly (see Figure 1).
- The number of companies increasing their R&D investment in 2007/8 was 20% more in the non-EU group than the EU one. Taking the top 100 companies in each group, the EU shows 57 increases of more than 5% in R&D and 25 decreases whereas the non-EU shows 63 increases of more than 5% and 13 decreases.
- Brake in trend of previous years, where the average R&D intensity⁶ of companies decreased. This has stabilised, due to net sales growing at similar pace or slower than R&D investments.
- The ratio of fixed capital investments to net sales continued to increase gradually worldwide, as fixed capital investments grew faster than net sales. The EU companies continue to show the biggest growth in fixed capital investments.

⁵ Every *Scoreboard* comprises data of the latest 4 financial years allowing analysis of three years trends for the same sample of companies.

⁶ R&D intensity is defined in the *Scoreboard* as the ratio between R&D and net sales.

Table 1. Overall Performance of companies in the 2008 Scoreboard*.

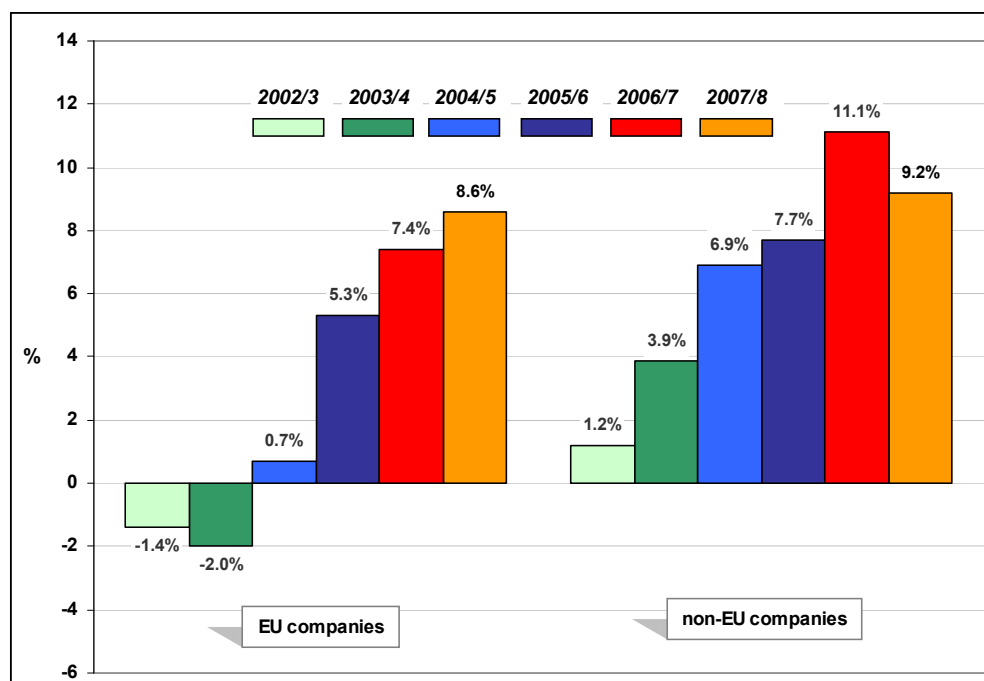
Factor	EU1000	Non-EU1000
R&D Investment, € bn	126.4 (121.1)	253.0 (250.5)
Change over previous year, %	8.6 (7.4)	9.2 (11.1)
CAGR ⁷ 3yr, %	7.6 (4.6)	9.3 (8.7)
Capex ⁸ / Net Sales, %	7.2 (7.0)	6.8 (6.6)
Net Sales, € bn	5515.1 (5156.1)	6638.6 (6474.3)
Change over previous year, %	7.0 (10.3)	9.2 (9.7)
CAGR 3yr, %	9.2 (8.1)	9.9 (10.7)
R&D intensity, %	2.3 (2.3)	3.8 (3.9)
Profitability ⁹ , %	12.2 (11.5)	11.3 (11.7)

* Figures of last year Scoreboard in parentheses.

Note: Calculation of growth rates and ratios include only companies for which data are fully available.

Source: *The 2008 EU Industrial R&D Investment Scoreboard*
European Commission, JRC/DG RTD.

Figure 1. Growth of R&D investment by EU and non-EU Scoreboard companies



Source: *The EU Industrial R&D Investment Scoreboards (of 2004, 2005, 2006, 2007, 2008)*
European Commission, JRC/DG RTD.

⁷ Compound annual growth rate.

⁸ Fixed capital investment

⁹ Operating profit as percentage of sales.

3. Top R&D investors

This chapter highlights the performance of individual companies, in particular, for those at the top of the R&D ranking. There are 80 companies in the world with R&D exceeding €1 bn (27 from the EU), 45 with R&D exceeding €2 bn (15 from the EU) and 8 with R&D exceeding €5 bn (1 from the EU).

Top 10

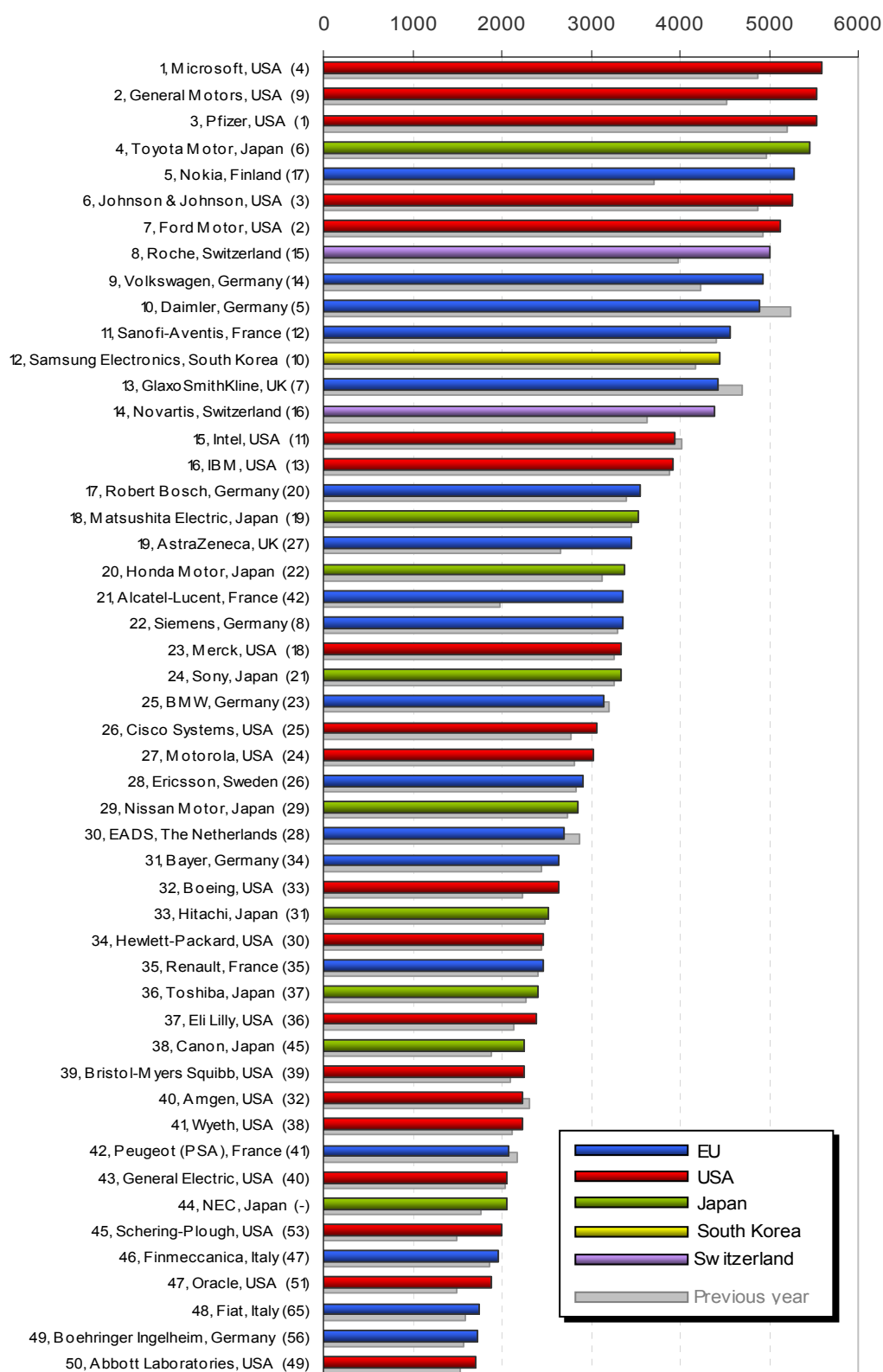
- There are three EU companies in the top 10 of the R&D ranking: Nokia, becoming the biggest EU R&D investor (partly through acquisitions), investing €5.28 bn, followed by Volkswagen with €4.92 bn and Daimler with €4.89 bn.
- There are five US companies in the top 10 of the R&D ranking: Microsoft, the world top R&D investor in the 2008 *Scoreboard* (€5.58 bn), General Motors (€5.54 bn), Pfizer (€5.53 bn), Johnson & Johnson (€5.25 bn) and Ford Motor (€5.13 bn).
- Among the top 10, there is one company each from Japan (Toyota Motor, €5.45 bn) and Switzerland (Roche, € 5.01 bn).
- Five companies in the top 10 have shown double digit growth in R&D investment.

Top 50

- The EU has 18 companies among the top 50 R&D investors, the same number as in the 2007 *Scoreboard*: two entries, Fiat, Boehringer Ingelheim, and two exits, Philips Electronics and BAE Systems.
- The USA has 20 companies, the same number than last year: one entry, Schering-Plough (partly through acquisitions) and one exit, Sun Microsystems.
- Japan has 9 companies, the same number than in last year's *Scoreboard*: one entry, NEC, and one exit, NTT.
- Fifteen companies in the top 50 have shown double digit growth in R&D investment (4 from the EU and 11 from the non-EU). Most of these companies have grown their R&D investment through acquisitions. Such EU companies include Alcatel-Lucent, with €3.37 bn (+69%), Nokia with €5.28 (+42%) and AstraZeneca with €3.45 bn (+30%). The non-EU group includes mostly US companies, for example Schering-Plough with €2.0 bn (+34%) and Oracle with €1.87 bn (+25%) and a Swiss company, Roche with €5.0 bn (+26%).

- The EU companies in the top 50 have a lower average R&D intensity (4.7%) than their non-EU counterparts (6.7%).
- The companies in the EU top 50 are mainly from the automobile & parts (12), pharmaceuticals sectors (7) and IT-related sectors (5), whereas in the non-EU top 50, companies are mainly from pharmaceuticals and biotechnology (12), IT-related sectors (14) and automobile & parts (7).

Figure 2. Ranking of the world top 50 R&D companies by their total R&D investment in the 2008 Scoreboard (€ million).



Note: The numbers in brackets after the names of the companies indicate their rankings in last year's Scoreboard.

Source: The 2008 EU Industrial R&D Investment Scoreboard, European Commission, JRC/DG RTD.

4. R&D distribution by industrial sectors

This chapter presents the main R&D trends among *Scoreboard* companies aggregated by industrial sectors¹⁰. For comparative purposes, the sample comprising the world's top 1402 companies is considered (the top 402 EU and 1000 non-EU companies).

General trends

Table 2 shows the R&D rankings of the main industrial sectors, including R&D growth and R&D intensity. Figure 3 shows those figures for the EU and non-EU groups.

- R&D investment in the *Scoreboard* remains highly concentrated by sectors: The top 15 sectors constitute 93.3% of the total R&D in the *Scoreboard* and the top three –pharmaceuticals & biotechnology, technology hardware & equipment and automobiles & parts– account for more than 50% (see Table 2).
- The top 3 sectors by R&D intensity (pharmaceutical & biotechnology, technology hardware & equipment and software & computer services), accounting for more than 40% of the overall R&D investment, have had double-digit R&D growth over the last three years.
- The oil & gas producers sector again shows the highest one-year growth rate (+22.9%), followed by fixed line telecommunications (+15.6%) and software & computer services (+13.1%). Two of these three also had the highest three-year growth rate, namely fixed line telecommunications (+13.7%) and oil & gas producers (+13.4%).
- The overall lower average of R&D intensity of EU companies is due to their large share of low R&D-intensive sectors (with much higher sales) as compared to the similar group of non-EU companies.

High and medium R&D intensity sectors

- The pharmaceuticals & biotechnology sector is reinforced as the top R&D investor, with a share of 19.2%. It is followed by the technology hardware & equipment sector, with a share of 18.3%. R&D investment growth of the companies in these sectors has been constantly high over the past years, showing double digit annual R&D growth rates.
- In the automobiles & parts and electronic & electrical equipment sectors, one-year R&D investment growth was considerably above the three year average

¹⁰ According to the Industry Classification Benchmark (ICB) applied in the *Scoreboard*.

growth rate. For the automobiles & parts sector, this is a contrast to past year's reduction of R&D investment in a number of large automakers.

- For chemicals, leisure goods and general industrials, one year R&D investment growth was much lower than the three year growth. The chemicals sector, after its strong recovery in the last *Scoreboard*, is the only one among the top 15 sectors showing an R&D investment decrease in the present *Scoreboard* (-1.3 %).
- Two telecommunications equipment companies have shown impressive R&D investment growth (partly due to acquisitions): Alcatel-Lucent (+69.4%) and Nokia (+42.3%).
- As in the previous *Scoreboard*, several pharmaceutical companies showed a strong increase in R&D investment (partly due to acquisitions): e.g. Schering-Plough (+33.7%), AstraZeneca (+29.8%), Roche (+25.9%), Novartis (+21.1%), Eli Lilly (+11.4%) and Abbott Laboratories (+11.1%).
- Industrial engineering (+12.0%), software & computer services (+11.8%), aerospace & defence (+11.6%), and technology hardware & equipment sectors have continued strong double digit growth over the past years.
- The aerospace & defence sector showed mixed developments. While the sector continued the strong R&D growth trend seen over the last few years, EADS reduced R&D investment by -5.8% and Boeing increased R&D investment by 18.2%. The overall one-year R&D investment growth rate of the sector fell to almost half (from 12.4 % in the past *Scoreboard* to 6.9%).
- The sectors with the highest R&D intensity are still pharmaceuticals & biotechnology, and IT sectors (software & computer services and technology hardware & equipment) while sectors like telecommunications services or oil & gas continue to show low R&D intensities. For the pharmaceuticals & biotechnology and IT sectors, the combination of high R&D intensity and high R&D investment share underlines the role of these sectors for R&D investment.

Table 2. Ranking of industrial sectors¹¹ by aggregate R&D for the world top 1402 companies in the 2008 Scoreboard.

Rank	Sector	R&D Investment (€ m)	Share in R&D investment (%)	Change from previous year (%)	CAGR 3 yrs (%)	R&D intensity (%)
1	Pharmaceuticals & Biotechnology	71409.78	19.2	11.5	13.2	16.1
2	Technology Hardware & Equipment	68154.09	18.3	10.8	10.2	8.5
3	Automobiles & parts	63234.41	17.0	6.9	4.9	4.2
4	Software & Computer Services	26594.72	7.1	13.1	11.8	9.7
5	Electronic & Electrical Equipment	26049.17	7.0	8.7	4.1	4.1
6	Chemicals	16427.68	4.4	-1.3	3.1	2.8
7	Aerospace & defence	15133.66	4.1	6.9	11.6	4.4
8	Leisure goods	13752.08	3.7	0.7	1.4	6.2
9	Industrial Engineering	11052.38	3.0	11.9	12.0	2.6
10	General industrials	8129.08	2.2	2.2	6.3	2.1
11	Fixed line telecommunications	7873.26	2.1	15.6	13.7	1.7
12	Health care equipment & services	6552.44	1.8	10.9	13.2	6.5
13	Oil & gas producers	5723.21	1.5	22.9	13.4	0.3
14	Food producers	4140.59	1.1	4.1	4.9	1.5
15	Household goods	3718.92	1.0	6.1	6.6	2.2
	Top 15 sectors	347945.5	93.3	8.9	8.7	4.1
	Rest of 21 sectors	24913.0	6.7	7.6	10.0	0.9
	Grand Total	372858.5	100.0	9.1	8.8	3.4

Source: *The 2008 EU Industrial R&D Investment Scoreboard.*
European Commission, JRC/DG RTD

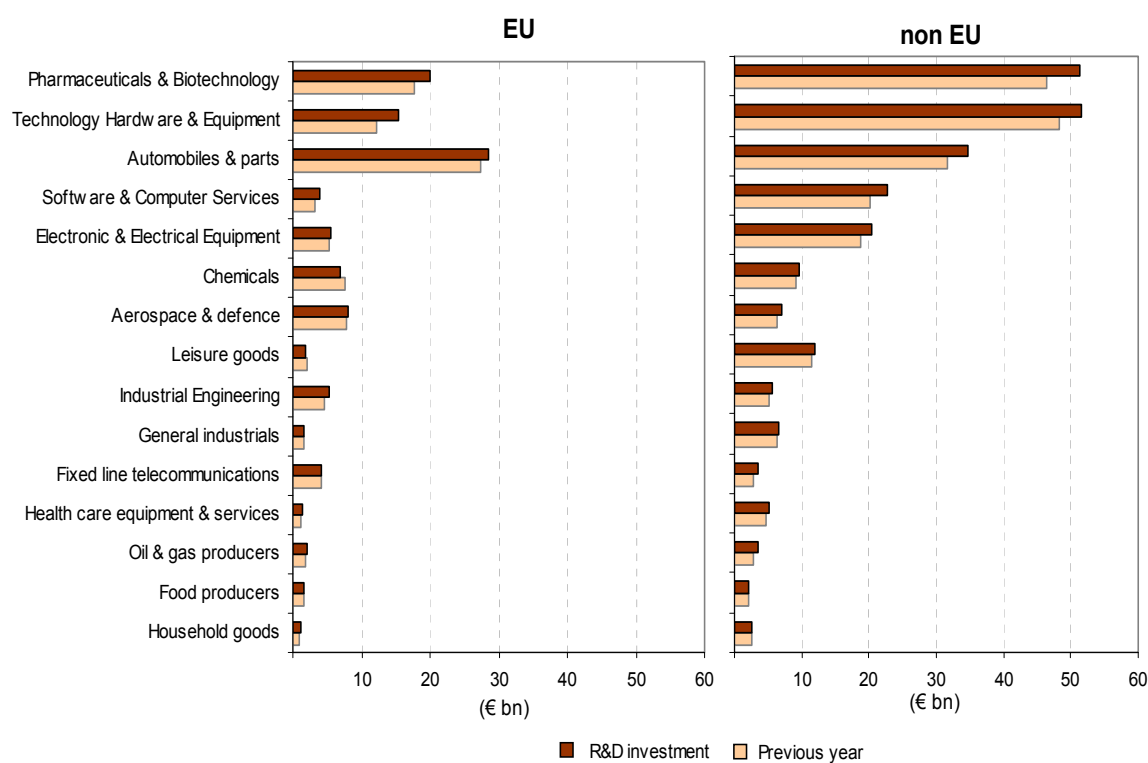
¹¹ According to three digits ICB (Industry Classification Benchmark)

Table 3. Overall sector R&D and average sector R&D intensities by main world region for the world top 1402 companies in the 2008 Scoreboard.

Rank	Sector	EU		US		Japan	
		R&D investment (€ m)	R&D intensity (%)	R&D investment (€ m)	R&D intensity (%)	R&D investment (€ m)	R&D intensity (%)
1	Pharmaceuticals & Biotechnology	20031.1	15.7	34853.6	16.7	5616.0	15.9
2	Technology Hardware & Equipment	16573.8	13.5	35451.9	9.6	10074.2	5.3
3	Automobiles & parts	28589.6	4.7	14101.6	3.9	18306.4	4.1
4	Software & Computer Services	3831.5	9.7	20227.9	10.6	1587.2	4.8
5	Electronic & Electrical Equipment	5604.8	3.7	2906.7	3.8	8899.4	5.3
6	Chemicals	6793.6	2.9	4118.5	2.4	4257.9	3.2
7	Aerospace & defence	7999.5	6.6	6557.8	3.3	51.3	6.1
8	Leisure goods	1822.1	5.9	2042.0	7.8	9672.9	6.2
9	Industrial Engineering	5330.8	3.1	3040.9	2.4	1507.1	2.7
10	General industrials	1571.7	2.8	4613.0	2.4	1253.8	2.8
11	Fixed line telecommunications	4247.1	1.6	673.7	0.8	1665.7	2.5
12	Health care equipment & services	1385.8	4.4	4717.1	7.8	243.6	5.6
13	Oil & gas producers	2179.8	0.3	1050.6	0.2	138.9	0.2
14	Food producers	1673.3	1.7	811.2	0.9	473.3	2.3
15	Household goods	1141.1	2.3	2207.4	2.5	343.5	1.2
	Top 15 sectors	108775.6	3.8	137373.9	5.0	64091.2	4.4
	Rest of 21 sectors	11099.2	0.7	6126.7	1.4	4859.6	1.1
	Grand Total	119874.7	2.7	143500.5	4.5	68950.7	3.6

Source: The 2008 EU Industrial R&D Investment Scoreboard.
European Commission, JRC/DG RTD

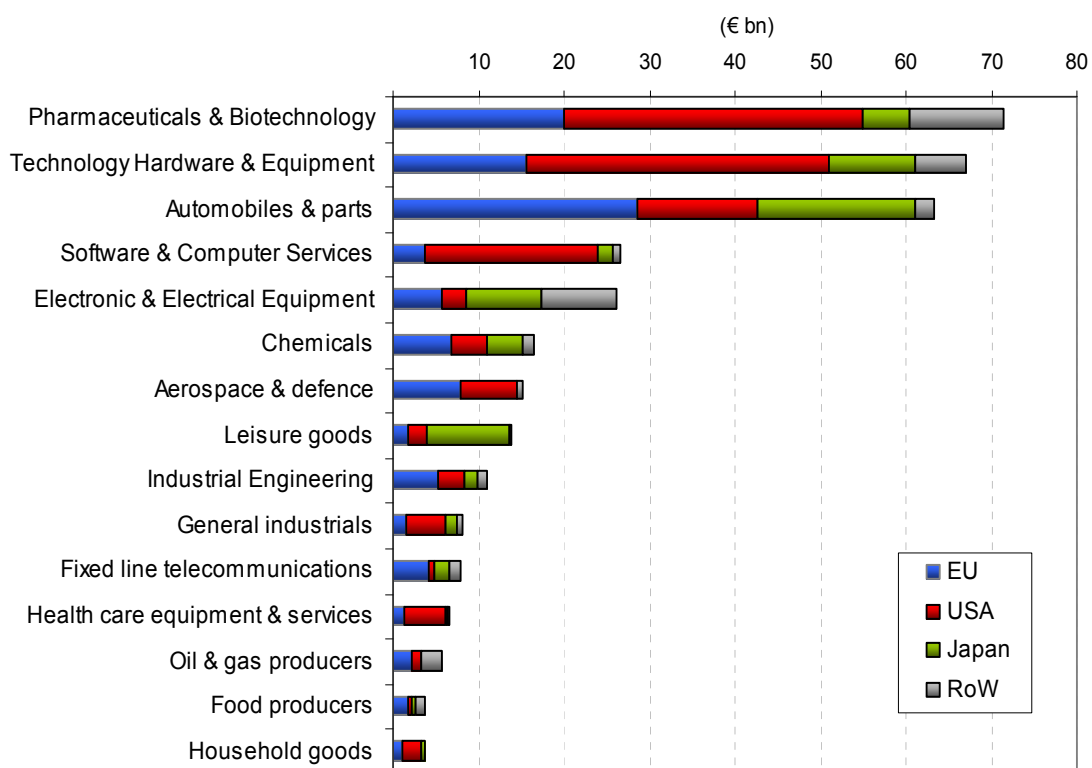
Figure 3. Ranking of industrial sectors by aggregate R&D for the world top 1402 companies in the 2008 Scoreboard (€ bn).



Note: Ranked by total worldwide R&D investment of the sector.

Source: The 2008 EU Industrial R&D Investment Scoreboard
European Commission, JRC/DG RTD.

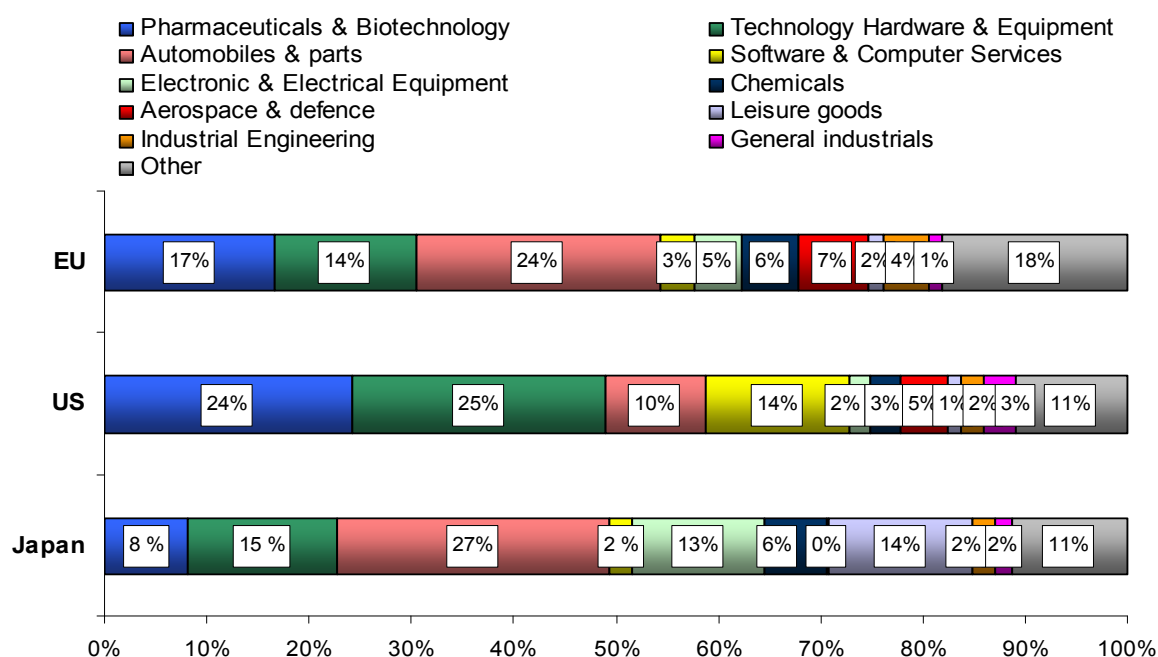
Figure 4. Ranking of industrial sectors by aggregate R&D by main world region for the world top 1402 companies in the 2008 Scoreboard (€ bn).



Note: Ranked by total worldwide R&D investment of the sector.

Source: The 2008 EU Industrial R&D Investment Scoreboard
European Commission, JRC/DG RTD.

Figure 5. R&D shares of sectors of the main world regions.



Source: The 2008 EU Industrial R&D Investment Scoreboard
European Commission, JRC/DG RTD.

Sector focus: Energy

This section spotlights recent developments captured by the *Scoreboard* in the field of energy where a growing amount of R&D is being focused at present. Sectors dealing with the production and distribution of oil, gas and electricity are showing very high R&D growth rates since several years (see Table 4). The difference in three year growth between the EU and non-EU is due to a stagnation of R&D investment among the EU oil & gas producers compared to 2004.

Figure 6 shows the top 20 *Scoreboard* companies from these three sectors.

- There are 7 EU companies in this list of top 20, some of them showing high annual R&D growth rates over the last three years, e.g. Royal Dutch Shell (29.5%), AREVA (20.3%), Vattenfall (11.6%) and BP (8.8%).
- In the non-EU group, high annual R&D growth rates over the last 3 years are shown by companies such as Petroleo Brasileiro (52.6%), Gazprom (38.4%), Chevron (32.4%) and China Petroleum & Chemical (31.1%).

Many other *Scoreboard* companies dealing with energy technologies are showing outstanding R&D trends. This is particularly the case of developments

in alternative energies¹², driven by security of supply and environmental concerns.

Some examples of companies operating in the area of alternative energy technologies are the following:

- In wind technology, Vestas Wind Systems and Nordex have had annual R&D growth rates of 29.6% and 44.4% respectively over the last three years.
- In the solar photovoltaic field, Q-Cells showed annual R&D growth rate of 148.6% over the past 3 years.
- In biofuels technology, Abengoa has grown its R&D investment at annual rate of 32.8% over the last three years.

Table 4. Overall Performance of companies in the oil & gas producers, oil equipment, services & distribution and electricity sectors from the world top 1402 companies in the 2008 Scoreboard.

Factor	EU	Non-EU
R&D Investment, € bn	3.5	6.0
Change over previous year, %	19.0	16.5
CAGR ¹³ 3yr, %	3.6	18.0
Capex ¹⁴ / Net Sales, %	8.1	10.1
Net Sales, € bn	910,7	1217,7
Change over previous year, %	7.1	10.9
CAGR 3yr, %	11.8	16.5
R&D intensity, %	0.38	0.49
Profitability ¹⁵ , %	14.7	17.0

Note: Calculation of growth rates and ratios include only companies for which data are fully available.

Source: *The 2008 EU Industrial R&D Investment Scoreboard*
European Commission, JRC/DG RTD.

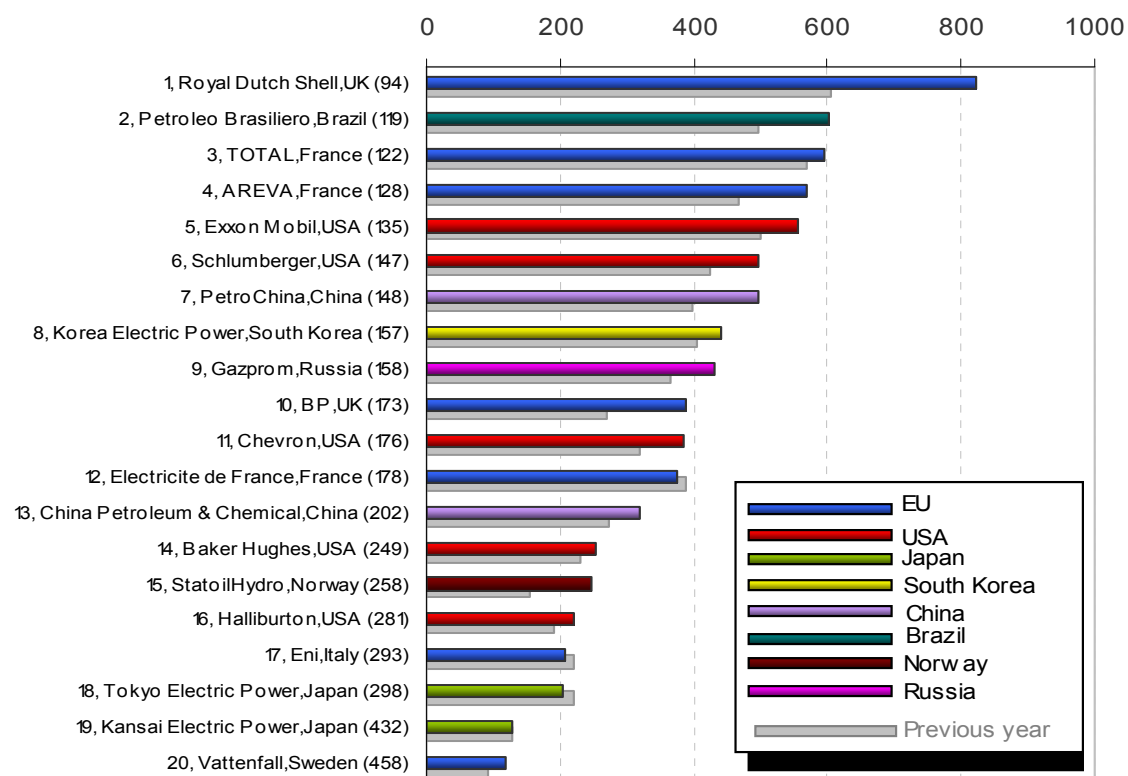
¹² In the *Scoreboard* ICB classification there is an Alternative Energy sector with only one firm. However there are many other *Scoreboard* companies performing energy-related R&D that are classified under other sectors, e.g. in industrial machinery, general industrials, etc.

¹³ Compound annual growth rate.

¹⁴ Fixed capital investment

¹⁵ Operating profit as percentage of sales.

Figure 6. Ranking of the world top 20 R&D companies in the energy sector (oil & gas producers, oil equipment, services & distribution and electricity) by their total R&D investment in the 2008 Scoreboard (€ million) .



Notes: The numbers in brackets after the names of the companies indicate their rankings in the 2008 Scoreboard.

Source: The 2008 EU Industrial R&D Investment Scoreboard, European Commission, JRC/DG RTD.

5. R&D distribution by region

This chapter presents the *Scoreboard* data aggregated by the main world regions, using the sample of the world's top 1402 companies. The sample includes the top 402 from the EU, 544 companies from the US (22 less than last year), 244 from Japan (7 more than last year) and 212 companies from the RoW¹⁶ (12 more than last year).

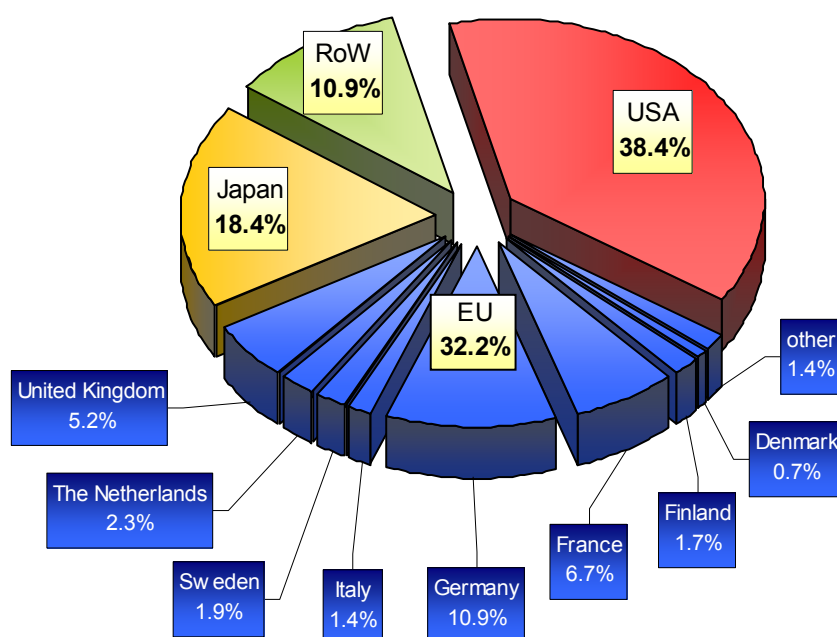
Key points

- The R&D growth of EU companies (8.8%) has been higher than the US (8.6%) and Japan (6.3%). The share of EU companies in total *Scoreboard* R&D investment increased from 30% to 32% whereas the share of US and Japanese companies dropped from 41% to 40%, and 19% to 18%, respectively (see Table 4).
- The companies of the RoW group showed the highest R&D growth (16.5 %). This is mostly due to companies based in Switzerland (19.3%) and South Korea (10.2%) that together represent about 60% of the RoW's R&D. Companies from India and China showed also very high rates of R&D growth (49.9% and 21.3% respectively), but have still a very low weight in the *Scoreboard*.
- The share of high R&D intensity sectors showing high R&D growth such as pharmaceutical & biotechnology, technology hardware & equipment and software & computer services determines, to a large extent, the aggregate R&D growth of regions.
- Within the EU group, *Scoreboard* companies in most countries, except in the Netherlands, showed a significant increase in both R&D and net sales. The R&D share of EU *Scoreboard* companies over the world top remained practically the same for Germany and Sweden companies, increased for companies from Finland and France and decreased slightly for UK companies.
- The R&D intensity of companies in most regions remained practically unchanged, thus breaking the trend of previous years in which it had fallen.
- The lower average R&D intensity of EU companies compared to their US and Japanese counterparts (see Table 3) is mostly due to the lower share of the EU in high R&D intensity sectors (Figure 5).

¹⁶ RoW = The group of *Scoreboard* companies not based in the EU, US or Japan. It covers companies from Switzerland, South Korea, China, Canada, Brazil, India, Taiwan and a further 15 countries.

- The average profitability for EU *Scoreboard* companies rose to 12.6%, from last year 11.9%, decreased for US companies from 12.9% to 12.1% and remained practically the same for Japanese companies at 7.5%.
- Continuing the trend seen in previous years, the capital intensity (percentage of fixed capital investment over net sales) of companies continued gradually to increase.

Figure 7. R&D investment by the top 1402 companies in the 2008 Scoreboard, breakdown by main world region (% of total €372.9 bn).



Source: *The 2008 EU Industrial R&D Investment Scoreboard*
European Commission, JRC/DG RTD.

Table 5. Overall comparison of the world top 1402 R&D companies by main world group*.

FACTOR	EU	USA	Japan	RoW
Number of companies	402 (400)	544 (563)	244 (237)	212 (200)
R&D Investment, € bn	119.9 (115.2)	143.5 (147.7)	68.9 (64.6)	40.53 (34.74)
One year change, %	8.8 (7.4)	8.6 (13.3)	6.3 (5.7)	16.5 (12.4)
CAGR ¹⁷ 3yr, %	7.6 (5.2)	10.1 (9.6)	5.6 (4.2)	13.6 (14.0)
Capex / Net Sales Ratio, %	7.1 (7.0)	5.1 (4.9)	6.9 (6.8)	10.1 (10.5)
Net Sales (€ bn)	4487.0 (4254.2)	3190.8 (3279.1)	1905.7 (1784.7)	1542.0 (1410.4)
One year change, %	6.7 (10.2)	6.8 (8.1)	8.3 (8.0)	15.7 (16.3)
CAGR 3yr (%)	9.1 (8.3)	8.6 (11.1)	7.4 (5.9)	16.5 (16.8)
R&D intensity, (%)	2.7 (2.7)	4.5 (4.5)	3.6 (3.6)	2.6 (2.7)
Profitability ¹⁸ (%)	12.6 (11.9)	12.1 (12.9)	7.5 (7.4)	14.2 (14.5)

* Figures of last year *Scoreboard* in parentheses.

Note: Calculation of growth rates and ratios include only companies for which data are fully available.

Source: *The 2008 EU Industrial R&D Investment*
European Commission, JRC/DG RTD.

¹⁷ Compound annual growth rate.

¹⁸ Operating profit as percentage of sales.

Annex 1 - Background information

The *Scoreboard* is part of the European Commission's monitoring activities to improve the understanding of trends in R&D investment by the private sector and the factors affecting it. It was created in response to the Commission's Research Investment Action Plan¹⁹, which aims to help close the gap between the EU's R&D investment and that of other developed economies.

The annual publication of the *Scoreboard* is intended to raise awareness of the importance of R&D for businesses and to encourage firms to disclose information about their R&D investments and other intangible assets.

The data for the *Scoreboard* are taken from companies' publicly available audited accounts. As in more than 99% of cases these accounts do not include information on the place where R&D is actually performed, the company's whole R&D investment in the *Scoreboard* is attributed to the country in which it has its registered office²⁰. This should be borne in mind when interpreting the *Scoreboard*'s country classifications and analyses. The *Scoreboard*'s approach is, therefore, fundamentally different²¹ from that of statistical offices or the OECD when preparing Business Enterprise Expenditure on R&D (BERD) data, which are specific to a given territory. The *Scoreboard* data are primarily of interest to those concerned with benchmarking company commitments and performance (e.g. companies, investors and policymakers), while BERD data are primarily used by economists, governments and international organisations interested in the R&D performance of territorial units defined by political boundaries. The two approaches are therefore complementary. The methodological approach of the *Scoreboard*, its scope and limitations are further detailed in Annex 2 below.

Scope and target audience

The *Scoreboard* is a benchmarking tool which provides reliable up-to-date information on R&D investment and other economic and financial data, with a unique EU-focus. The 2000 companies listed in this year's *Scoreboard* account for about 80%²² of worldwide business enterprise expenditure on R&D (BERD). The data in the *Scoreboard* are published as a four-year time-series to allow further trend analyses to be carried out, for instance, to examine links between R&D and business performance.

19 "Investing in research: an action plan for Europe", COM(2003)266, http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0226en02.pdf.

20 The registered office is the company address notified to the official company registry. It is normally the place where a company's books are kept.

21 The *Scoreboard* refers to all R&D financed by a company from its own funds, regardless of where the R&D is performed. BERD refers to all R&D activities performed by businesses within a particular sector and territory, regardless of the location of the business's headquarters, and regardless of the sources of finance. The sources of data also differ: the *Scoreboard* collects data from audited financial accounts and reports whereas BERD typically takes a stratified sample, covering all large companies and a representative sample of smaller companies. Additional differences concern the definition of R&D intensity (BERD uses the percentage of R&D in value added, while the *Scoreboard* considers the R&D/Sales ratio) and the sectoral classification (BERD uses NACE (the European statistical classification of economic sectors), while the *Scoreboard* uses the ICB (the International Classification Benchmark)).

22 According to latest Eurostat statistics. However BERD and *Scoreboard* figures are not directly comparable.

The *Scoreboard* is aimed at three main audiences.

- **Companies** can use the *Scoreboard* to benchmark their R&D investments and so find where they stand in the EU and in the global industrial R&D landscape. This information could be of value in shaping business or R&D strategy.
- **Investors and financial analysts** can use the *Scoreboard* to assess investment opportunities and risks.
- **Policy-makers, government and business organisations** can use R&D investment information as an input to policy-formulation or other R&D-related actions.

Furthermore, the *Scoreboard* dataset has been made freely accessible so as to encourage further economic and financial analyses and research by any interested parties.

Annex 2 - Methodological notes

The 2008 EU Industrial R&D Investment Scoreboard (*Scoreboard*) has been prepared on the basis of information gathered according to the standards set out below.

Scope of the EU Industrial R&D Investment Scoreboard

The *Scoreboard* has been prepared from companies' **annual reports and accounts** received by an independent data provider up to and including **29 July 2008**. To prepare the *Scoreboard*, a database of 5316 companies' accounts was screened.

In order to maximise completeness and avoid double counting, the **consolidated group accounts of the ultimate parent company** are used. Companies which are subsidiaries of any other company, such as Scottish Power (UK), Ford (UK) or IBM (Germany) are not listed separately. Where consolidated group accounts of the ultimate parent company are not available, subsidiaries are included, e.g. Cognis Deutschland (Germany).

For some companies whose accounts are expected close to the cut-off date, **preliminary announcements** are used. Examples are Microsoft (USA), Renishaw (UK), or Misys (UK).

In case of a **demerger**, the full history of the continuing entity is included. The history of the demerged company can only go back as far as the date of the demerger to avoid double counting of figures, e.g. Prysmian (Italy) or NXP (The Netherlands).

In case of an **acquisition or merger**, pro forma figures for the year of acquisition are used along with pro-forma comparative figures if available, e.g. Sanofi-Aventis during 2005.

The R&D investment included in the *Scoreboard* is the cash investment which is funded by the companies themselves. It excludes R&D undertaken under contract for customers such as governments or other companies. It also excludes the companies' share of any associated company or joint venture R&D investment when disclosed. Where part or all of R&D costs have been capitalised, the additions to the appropriate intangible assets are included to calculate the cash investment and any amortisation eliminated.

The **first time adoption of IFRS**²³, for example by many listed European companies, gives rise to an information discontinuity because R&D is treated differently than before. R&D capitalisation criteria under IFRS are stricter and, where the criteria are met, the amounts must be capitalised. In some pre-IFRS jurisdictions either one or both of these conditions did not apply. The following was implemented to minimise the impact of transition to IFRS:

a) The previous year's figures disclosed in the new IFRS accounts have been used in place of the previous year's GAAP figures disclosed in the past annual report. The effect is that the discontinuity moves back by one year so that it impacts on the three year growth statistic but not the one year growth statistic.

²³ Since 2005, the European Union requires all listed companies in the EU to prepare their consolidated financial statements according to IFRS (International Financial Reporting Standards, see: <http://www.iasb.org/>).

b) In most cases, comparative figures are not disclosed, so the previous years' GAAP figures disclosed in the past annual report were examined to assess whether or not there appears to be a material component not disclosed. If the non disclosure appeared to be not material it was assumed to be zero and the R&D spend was calculated. If the non disclosure appeared to be material, the R&D spend was treated as unknown and the result is reported as "not available (n/a)". Companies with "n/a" results are excluded from the aggregate growth statistics.

Companies are allocated to the **country of their registered office**. In some cases this is different from the operational or R&D headquarters. This means that the results are independent of the actual location of the R&D activity. Examples are STMicroelectronics (the Netherlands) or AstraZeneca (UK).

The **data** used for the *Scoreboard* are different from data provided by statistical offices, e.g. BERD data. The *Scoreboard* refers to all R&D financed by a particular company from its own funds, regardless of where that R&D activity is performed. BERD refers to all R&D activities performed by businesses within a particular sector and territory, regardless of the location of the business's headquarters, and regardless of the sources of finance.

Further, the *Scoreboard* collects data from audited financial accounts and reports. BERD typically takes a stratified sample, covering all large companies and a representative sample of smaller companies. Additional differences concern the definition of R&D intensity (BERD uses the percentage of value added, while the *Scoreboard* measures it as the R&D/Sales ratio) and the sectoral classification they use (BERD follows NACE, the European statistical classification of economic sectors, while the *Scoreboard* classifies companies' economic activities according to the ICB classification).

Sources

The database from which the *Scoreboard* is drawn consists of information extracted from the audited annual reports and accounts of companies, using rigorous financial reporting practice verification processes.

The companies are those which are identified as having an R&D activity and which either have their accounts publicly available for free (e.g. on the internet or upon request) or at low cost (e.g. at the company registry).

The market capitalisation data have been extracted from Reuters. These reflect the market capitalisation of each company at the close of trading on 8 August 2008.

The source documents, annual reports & accounts, are public domain documents and so the *Scoreboard* is capable of independent replication.

The database is supplemented by a feed service from Standard & Poor's Compustat Global Vantage database to identify potential new entrants to the ranking. The Orbis and the Experian databases have been used and recognised stock exchanges are monitored also.

The database contains many times more companies than are listed in the *Scoreboard* to ensure that the top companies by R&D investment can be identified in each case.

The industry sectors are based on the ICB Industry Classification System.

The *Scoreboard* data have been compiled by Company Reporting Ltd and the following subcontracting collaborating partners: Inno Group (Germany), SPI Sociedade Portuguesa de Inovacao (Portugal), Austrian Institute for SME Research (Austria), West Hungarian Research Institute (Hungary), Slovakian National Agency for SME Development (Slovakia), Thomaz Puh (Slovenia), Entrepreneurship and Economic Development Research Institute EEDRI (Poland), Etlatieto (Research Institute of Finnish Economy, Finland), Stifterverband Wissenschaftsstatistik (Germany).

In 2008, Company Reporting has continued a partnership with European organisations to expand the monitoring process in all EU economies. These external sources are used only to identify potential new entrants.

Limitations

The approach used in preparing the *Scoreboard* has the following limitations:

1. Disclosure

The *Scoreboard* relies on **disclosure of R&D investment** in published annual reports and accounts. Therefore, companies which do not disclose figures for R&D investment or which disclose only figures which are not material enough are not included in the *Scoreboard*. There are few companies which disclose a significant R&D investment only as a percentage figure (often to only one significant figure), e.g. Vallourec, France. These companies are not included in the *Scoreboard*.

Due to different national accounting standards and **disclosure practice**, companies of some countries are less likely than others to disclose R&D investment consistently.

Further, the facilities and possibility to acquire accounts differ considerably from country to country because the organisation of document registration varies between local and central registries as well as the information that can be obtained and the cost to acquire this data.

In some countries, R&D costs are very often integrated with other operational costs and can therefore not be identified separately. For example, companies from many Southern European countries or the new Member States are under-represented in the *Scoreboard*. On the other side, UK companies are over-represented in the *Scoreboard*. For listed companies, country representation will improve with IFRS adoption.

For many **highly diversified companies**, the R&D investment disclosed in their accounts relates only part of their activities, whereas sales, profit before tax and market capitalisation are in respect of all their activities. Unless such groups disclose their R&D investment additional to the other information in segmental analyses, it is not possible to relate the R&D more closely to the results of the individual activities which give rise to it. The impact of this is that some statistics for these groups, e.g. R&D as a percentage of sales, are possibly underestimated and so comparisons with non-diversified groups are limited.

The R&D investment disclosed in some companies' accounts follows the US practice of including **engineering costs** relating to product improvement, e.g. Ingersoll-Rand, Bermuda. Where these engineering costs have been disclosed separately, they have been excluded from the *Scoreboard*. However, the incidence of non-disclosure is uncertain and the impact of this

practice is a possible overstatement of some overseas R&D investment figures in comparison with the EU.

Where R&D income can be clearly identified as a result of **customer contracts** it is deducted from the R&D expense stated in the annual report, so that the R&D investment included in the *Scoreboard* excludes R&D undertaken under contract for customers such as governments or other companies. However, the disclosure practise differs and R&D income from customer contracts cannot always be clearly identified. This means a possible overstatement of some R&D investment figures in the *Scoreboard* for companies with directly R&D related income where this is not disclosed in the annual report.

As a result of these disclosure limitations, the *Scoreboard* **cannot set out to capture systematically all companies with R&D activity**. There is evidence to suggest that the distribution of R&D activity is highly skewed towards larger companies, with a “long tail” of smaller companies.

2. Measurement

In implementing the definition of R&D, companies exhibit **variability** arising from three principal sources:

- a) Natural variability arises from differing interpretations of the definition. Some companies view a process as an R&D process while other companies may view the same process as an engineering or other process.
- b) Data capture variability arises from differing information systems. Some companies have in place better systems than others for measuring the costs associated with R&D processes. This problem of data capture systems appears challenging for companies in the EU Member States.
- c) Fiscal variability arises from fiscal incentives based on the treatment of costs.

Measurement variability therefore has an impact on the extent of R&D investment disclosure.

3. Timing

The accounts of the companies included in the current year set are their **latest published accounts** and are intended to be their fiscal year 2007 accounts. Companies from most countries have discretion in the choice of accounting period end. As a result, the current year set of the 2008 *Scoreboard* can include accounts ending on a range of dates from late 2006 to early 2008. Furthermore, the accounts of some companies are publicly available more promptly than others.

Therefore, the current year set represents a heterogeneous set of timed data.

4. Availability

The accounts of companies which are **not listed** on any recognised stock exchange are

significantly more difficult to capture. There is considerable variability between countries in relation to the existence of and, where they exist, the administrative procedures and costs associated with capturing accounts. This results in (i) the smaller private companies from the “long tail” being under represented and (ii) a smaller number of significant private enterprises, such as Servier (France) not being represented.

Interpretation

There are some fundamental aspects of the *Scoreboard* which affect their interpretation.

1. Funding vs. activity

The focus of the *Scoreboard* on R&D investment as reported in group accounts means that the results can be independent of the location of the R&D activity. The *Scoreboard* indicates the level of R&D funded by companies, not all of which is carried out in the country in which the company is registered. This enables inputs such as R&D and Capex investment to be related to outputs such as Sales, Profit, productivity ratios and market capitalisation.

The information in the *Scoreboard* differs therefore from other information such as the Business Enterprise R&D (BERD) data generated by the OECD, Eurostat and by National Statistics Offices.

The BERD data focus on R&D activity within the countries, independent of the source of funding and, at the national level, exclude R&D carried out by companies in other countries. In brief, the distinction can be seen as “funding vs. activity”.

2. Growth

At the aggregate level, the growth statistics reflect the growth of the set of companies in the current year set. Companies which may have existed in the base year but which are not represented in the current year set are not part of the *Scoreboard* (a company may continue to be represented in the current year set if it has been acquired by or merged with another). These are therefore “successful efforts” aggregates rather than economic estimates of market aggregates.

3. Currency effects

All foreign currency amounts have been translated at the Euro exchange rates ruling at 31 December 2007 as shown in the following table:

Country	Euro exchange rate as of 31 Dec 2007
Australia	\$ 1.67
Canada	\$ 1.44
China	10.68 Renminbi
Czech Republic	26.59 Koruna
Denmark	7.46 Danish Kronor
Hungary	252.80 Forint
India	57.63 Indian Rupee
Israel	5.63 Shekel
Japan	163.33 Yen
Norway	7.94 Norwegian Kronor
Russia	35.88 Rouble
South Korea	1368.56 Won
Sweden	9.45 Swedish Kronor
Switzerland	1.66 Swiss Franc
UK	£ 0.73
USA	\$ 1.46
Taiwan	\$ 47.42

The exchange rate conversion also applies to the historical data. The result is that over time the *Scoreboard* reflects the domestic currency results of the companies rather than economic estimates of current purchasing parity results.

The original domestic currency data can be derived simply by reversing the translations at the rates above. Users can then apply their own preferred current purchasing parity transformation models.

Glossary of definitions

1. **Research and Development (R&D) investment** in the *Scoreboard* is the cash investment funded by the companies themselves. It excludes R&D undertaken under contract for customers such as governments or other companies. It also excludes the companies' share of any associated company or joint venture R&D investment. Being that disclosed in the annual report and accounts, it is subject to the accounting definitions of R&D. For example, a definition is set out in International Accounting Standard (IAS) 38 "Intangible assets" and is based on the OECD "Frascati" manual. **Research** is defined as original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Expenditure on research is recognised as an expense when it is incurred. **Development** is the application of research findings or other knowledge to a plan or design for the production of new or

substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use. Development costs are capitalised when they meet certain criteria and when it can be demonstrated that the asset will generate probable future economic benefits. Where part or all of R&D costs have been capitalised, the additions to the appropriate intangible assets are included to calculate the cash investment and any amortisation eliminated.

2. **Sales** follow the usual accounting definition of sales, excluding sales taxes and shares of sales of joint ventures & associates. For banks, sales are defined as the "Total (operating) income" plus any insurance income. For insurance companies, sales are defined as "Gross premiums written" plus any banking income.

3. **R&D intensity** is the ratio between R&D investment and net sales of a given company or group of companies. At the aggregate level, R&D intensity is calculated only by those companies for which data exist for both R&D and net sales in the specified year. The calculation of R&D intensity in the *Scoreboard* is different from than in official statistics, e.g. BERD, where R&D intensity is based on value added instead of net sales.

4. **Operating profit** is calculated as profit (or loss) before taxation, plus net interest cost (or minus net interest income) minus government grants, less gains (or plus losses) arising from the sale/disposal of businesses or fixed assets.

5. **One-year growth** is simple growth over the previous year, expressed as a percentage: $1 \text{ yr growth} = 100 * ((C/B) - 1)$; where C = current year amount, and B = previous year amount. 1yr growth is calculated only if data exist for both the current and previous year. At the aggregate level, 1yr growth is calculated only by aggregating those companies for which data exist for both the current and previous year.

6. **Three-year growth** is the compound annual growth over the previous three years, expressed as a percentage: $3 \text{ yr growth} = 100 * (((C/B)^{(1/t)} - 1)$; where C = current year amount, B = base year amount (where base year = current year - 3), and t = number of time periods (= 3). 3yr growth is calculated only if data exist for the current and base years. At the aggregate level, 3yr growth is calculated only by aggregating those companies for which data exist for the current and base years.

7. **Capital expenditure (Capex)** is expenditure used by a company to acquire or upgrade physical assets such as equipment, property, industrial buildings. In accounts capital expenditure is added to an asset account (i.e. capitalised), thus increasing the asset's base. It is disclosed in accounts as additions to tangible fixed assets

8. Number of **employees** is the total consolidated average employees or year end employees if average not stated.

9. **R&D per employee** is the simple ratio of R&D investment over employees. At the aggregate level, R&D per employee and the other non-growth statistics are calculated only by aggregating those companies for which data exist for both the numerator and the denominator.

10. **R&D employees** is the number of employees engaged in R&D activities as stated in the annual report.

11. **Market capitalisation** is the share price multiplied by the number of shares issued at a

given date. Market capitalisation data have been extracted from both the Financial Times London Share Service and Reuters. These reflect the market capitalisation of each company at the close of trading on 8 August 2008. The gross market capitalisation amount is used to take account of those companies for which not all the equity is available on the market. Companies not listed on a recognised stock exchange have been distinguished separately by the use of italics. If a listed company is suspended from trade, the market capitalisation will be shown as “n/a”, e.g. *Amtel-Vredestein*, The Netherlands.

12. **Market Spread** details sales by destination, distinguishing between Europe, North America (USA and Canada) and the Rest of the World. The definition of Europe is subject to the definitions adopted by the individual companies. In cases in which companies have defined a market spread area as EMEA (Europe, Middle East, Africa), this has been allocated to Europe. When a company has not clearly disclosed the turnover region North America but Americas, this has been allocated to North America.

13. **Industry sectors** in are based on the ICB Industry Classification System. The level of disaggregation is generally the three-digit level unless indicated otherwise.

Annex 3 - List of EU1000 and non-EU1000 companies

The following tables provide the list of top R&D investors based in the EU and those based outside the EU, ranked by the level of R&D investment and including companies' net sales, R&D intensity and operating profits.

The full dataset of the 2008 EU industrial R&D investment *Scoreboard* is freely available in the JRC/IPTS website <http://iri.jrc.ec.europa.eu/>.

The data for the EU and the non-EU groups are presented in single tables comprising rankings by companies, industrial sectors and countries. Each listing includes the following company data of the latest four financial years:

- Company identification (name, country of registration, sector of declared activity according to ICB classifications).
- R&D investment
- Net Sales
- Capital expenditure
- Operating profit or loss
- Market capitalisation
- Total number of employees

Table A2.1. Ranking of the top 1000 EU companies by level of R&D investment.

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
			Top 1000 Companies	126,358.38	8.6	5,515,078	2.3	12.2
		<i>number of companies for calculation</i>		1000	983	983	974	965
1	Nokia	Telecommunications equipment (9578)	Finland	5,281.00	42.3	51,058	10.3	11.7
2	Volkswagen	Automobiles & parts (335)	Germany	4,923.00	16.1	108,897	4.5	6.3
3	Daimler	Automobiles & parts (335)	Germany	4,888.00	-6.6	129,436	3.8	6.8
4	Sanofi-Aventis	Pharmaceuticals (4577)	France	4,563.00	3.6	28,052	16.3	23.0
5	GlaxoSmithKline	Pharmaceuticals (4577)	UK	4,419.43	-6.1	30,928	14.3	33.5
6	Robert Bosch	Automobiles & parts (335)	Germany	3,560.00	4.8	46,320	7.7	6.9
7	AstraZeneca	Pharmaceuticals (4577)	UK	3,448.55	29.8	20,217	17.1	27.4
8	Alcatel-Lucent	Telecommunications equipment (9578)	France	3,368.00	69.4	18,005	18.7	-24.4
9	Siemens	Electrical components & equipment (2733)	Germany	3,366.00	1.7	90,348	3.7	6.5
10	BMW	Automobiles & parts (335)	Germany	3,144.00	-2.0	56,018	5.6	7.1
11	Ericsson	Telecommunications equipment (9578)	Sweden	2,911.03	2.4	19,872	14.6	16.2
12	EADS	Aerospace & defence (271)	The Netherlands	2,701.00	-5.9	39,123	6.9	-0.3
13	Bayer	Chemicals (135)	Germany	2,645.00	7.7	32,631	8.1	9.4
14	Renault	Automobiles & parts (335)	France	2,462.00	2.6	39,561	6.2	7.3
15	Peugeot (PSA)	Automobiles & parts (335)	France	2,074.00	-4.6	60,613	3.4	1.8
16	Finmeccanica	Aerospace & defence (271)	Italy	1,955.00	4.6	11,916	16.4	8.5
17	Fiat	Automobiles & parts (335)	Italy	1,741.00	8.9	58,529	3.0	5.2
18	Boehringer Ingelheim	Pharmaceuticals (4577)	Germany	1,730.00	9.9	10,952	15.8	19.2
19	BT	Fixed line telecommunications (653)	UK	1,704.60	11.9	28,188	6.0	11.1
20	Philips Electronics	Leisure goods (374)	The Netherlands	1,604.00	-17.7	27,037	5.9	8.3
21	SAP	Software (9537)	Germany	1,458.00	12.3	10,256	14.2	26.2
22	BASF	Chemicals (135)	Germany	1,399.40	7.5	57,951	2.4	12.8
23	Volvo	Commercial vehicles & trucks (2753)	Sweden	1,388.00	16.4	30,203	4.6	7.4
24	Infineon Technologies	Semiconductors (9576)	Germany	1,169.00	-1.1	7,682	15.2	-5.8
25	STMicroelectronics	Semiconductors (9576)	The Netherlands	1,166.16	5.7	6,816	17.1	4.4
26	Merck	Pharmaceuticals (4577)	Germany	1,123.00	53.5	8,452	13.3	4.6
27	NXP	Semiconductors (9576)	The Netherlands	1,058.00		4,629	22.9	6.2
28	Novo Nordisk	Pharmaceuticals (4577)	Denmark	996.43	23.0	5,610	17.8	24.3
29	France Telecom	Fixed line telecommunications (653)	France	894.00	4.4	52,959	1.7	18.9
30	SAFRAN	Aerospace & defence (271)	France	887.00	3.3	11,494	7.7	0.5
31	Unilever	Food producers (357)	UK	868.00	-4.2	40,187	2.2	12.7

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
32	Continental	Automobiles & parts (335)	Germany	842.10	24.2	16,619	5.1	9.9	
33	Royal Dutch Shell	Oil & gas producers (53)	UK	821.44	35.7	243,342	0.3	13.8	
34	Valeo	Automobiles & parts (335)	France	790.00	0.1	10,106	7.8	3.2	
35	UCB	Pharmaceuticals (4577)	Belgium	781.00	27.0	3,626	21.5	8.2	
36	Porsche (now Porsche Automobile)	Automobiles & parts (335)	Germany	734.10	63.7	7,368	10.0	80.9	
37	Schneider	Electrical components & equipment (2733)	France	675.00	13.4	17,309	3.9	13.8	
38	ZF	Automobiles & parts (335)	Germany	666.00	14.0	12,649	5.3	6.7	
39	Royal Bank of Scotland	Banks (835)	UK	654.88	25.9	42,363	1.5	31.8	
40	Rolls-Royce	Aerospace & defence (271)	UK	618.12	10.5	10,123	6.1	6.9	
41	Telefonica	Fixed line telecommunications (653)	Spain	594.00	1.0	56,441	1.1	19.0	
41	TOTAL	Oil & gas producers (53)	France	594.00	4.4	136,824	0.4	19.5	
43	Thales	Aerospace & defence (271)	France	584.00	13.0	12,296	4.7	5.9	
44	Michelin	Automobiles & parts (335)	France	571.00	-3.4	16,867	3.4	7.8	
45	Solvay	Chemicals (135)	Belgium	570.00	-0.7	9,572	6.0	9.9	
45	AREVA	Electricity (753)	France	570.00	22.1	11,923	4.8	7.5	
47	ALSTOM	Industrial machinery (2757)	France	561.00	27.5	16,908	3.3	7.3	
48	L'Oreal	Personal goods (376)	France	559.90	5.1	17,063	3.3	16.4	
49	Deutsche Telekom	Fixed line telecommunications (653)	Germany	548.00	12.5	62,516	0.9	7.9	
50	ASML	Semiconductors (9576)	The Netherlands	488.96	27.3	3,809	12.8	22.7	
51	Vivendi	Media (555)	France	423.00	14.6	21,657	2.0	22.0	
52	HSBC	Banks (835)	UK	401.49	-0.3	59,916	0.7	27.6	
53	Saint-Gobain	Construction & materials (235)	France	399.00	7.0	43,421	0.9	6.4	
54	BP	Oil & gas producers (53)	UK	387.12	43.3	194,496	0.2	10.5	
55	Electricite de France	Electricity (753)	France	375.00	-3.6	59,637	0.6	13.0	
56	DSM	Chemicals (135)	The Netherlands	372.00	13.8	8,757	4.2	7.1	
57	MAN	Commercial vehicles & trucks (2753)	Germany	358.00	-1.1	16,576	2.2	11.0	
58	Shire	Pharmaceuticals (4577)	UK	354.84	71.7	1,666	21.3	-1.1	
59	Henkel	Household goods (372)	Germany	350.00	2.9	13,074	2.7	10.9	
60	Scania	Commercial vehicles & trucks (2753)	Sweden	319.91	12.8	8,997	3.6	14.2	
61	Vodafone	Mobile telecommunications (657)	UK	318.59	5.4	48,303	0.7	28.5	
62	Thomson	Media (555)	France	316.00	-4.5	6,108	5.2	1.0	
63	Societe Generale	Banks (835)	France	315.00	47.2	21,923	1.4	8.4	
64	Evonik Industries	General industrials (272)	Germany	312.00	3.0	16,645	1.9	6.4	
65	Lundbeck	Pharmaceuticals (4577)	Denmark	293.32	11.7	1,473	19.9	23.8	
66	Dassault Systemes	Software (9537)	France	292.00	3.9	1,259	23.2	19.5	
67	Carl Zeiss	Health care equipment & services (453)	Germany	290.00	14.2	2,604	11.1	13.9	
68	Hella	Automobiles & parts (335)	Germany	284.80	-0.3	3,667	7.8	1.5	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
69	AKZO Nobel	Chemicals (135)	The Netherlands	280.00	-68.4	13,502	2.1	10.1	
70	MAHLE	Automobiles & parts (335)	Germany	277.67	14.9	5,060	5.5	6.9	
71	Autoliv	Automobiles & parts (335)	Sweden	270.65	-0.5	4,630	5.8	7.5	
72	Dassault Aviation	Aerospace & defence (271)	France	265.03	-6.2	4,085	6.5	11.7	
73	Nycomed	Pharmaceuticals (4577)	Luxembourg	264.80	608.6	3,497	7.6	10.1	
74	ThyssenKrupp	Industrial metals (175)	Germany	264.00	9.1	51,723	0.5	7.1	
75	BSH Bosch und Siemens Hausgerate	Household goods (372)	Germany	263.00	11.9	8,818	3.0	7.5	
76	Reuters (now Thomson Reuters)	Media (555)	UK	258.69	8.0	3,547	7.3	10.5	
77	Behr	Automobiles & parts (335)	Germany	241.00	5.2	3,383	7.1	2.5	
78	BAE Systems	Aerospace & defence (271)	UK	239.62	8.6	19,482	1.2	7.6	
79	Sandvik	Industrial machinery (2757)	Sweden	236.20	22.8	9,137	2.6	16.5	
80	UBIsoft Entertainment	Software (9537)	France	226.01	73.0	680	33.2	5.4	
81	Fortis	Banks (835)	Belgium	226.00	247.7	14,899	1.5	19.0	
82	Heidelberger Druckmaschinen	Industrial machinery (2757)	Germany	221.66	-6.5	3,670	6.0	7.0	
83	Voith	General industrials (272)	Germany	219.44	13.4	4,190	5.2	7.3	
84	Oce	Electronic office equipment (9574)	The Netherlands	218.75	-1.1	3,098	7.1	3.8	
85	TeliaSonera	Fixed line telecommunications (653)	Sweden	213.87	-18.9	10,196	2.1	26.9	
86	Electrolux	Household goods (372)	Sweden	213.45	10.1	11,083	1.9	4.0	
87	Eni	Oil & gas producers (53)	Italy	208.00	-6.3	87,256	0.2	22.5	
88	Agfa-Gevaert	Electronic equipment (2737)	Belgium	200.00	-1.0	3,283	6.1	3.3	
89	Fresenius	Health care equipment & services (453)	Germany	184.00	10.2	11,358	1.6	14.2	
90	Rheinmetall	Automobiles & parts (335)	Germany	179.00	5.9	4,005	4.5	6.0	
91	Legrand	Electrical components & equipment (2733)	France	175.90	0.2	4,129	4.3	16.1	
92	L'Air Liquide	Chemicals (135)	France	175.10	13.5	11,801	1.5	15.0	
93	Ipsen	Pharmaceuticals (4577)	France	174.85	8.6	994	17.6	20.0	
94	Tesco	Food & drug retailers (533)	UK	174.27	-0.8	64,396	0.3	5.7	
95	Pirelli	Automobiles & parts (335)	Italy	173.00	1.2	6,505	2.7	7.5	
96	Smiths	General industrials (272)	UK	171.28	-41.9	4,243	4.0	12.2	
97	Freudenberg	General industrials (272)	Germany	170.30	-2.7	5,341	3.2	8.0	
98	Intesa-Sanpaolo	Banks (835)	Italy	167.00	11.3	16,540	1.0	30.9	
99	BAT	Tobacco (378)	UK	162.02	22.7	13,640	1.2	32.7	
100	Barclays	Banks (835)	UK	160.66	24.2	31,984	0.5	28.9	
101	Atlas Copco	Industrial machinery (2757)	Sweden	160.43	5.6	6,705	2.4	18.8	
102	Rabobank	Banks (835)	The Netherlands	159.00	-10.7	10,746	1.5	28.4	
103	Knorr-Bremse	Industrial machinery (2757)	Germany	158.67	12.7	3,251	4.9	10.0	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
104	Arkema	Chemicals (135)	France	158.00	-6.0	5,675	2.8	3.5	
105	Amdocs	Software (9537)	UK	157.62	23.4	1,940	8.1	12.9	
106	Diehl Stiftung	General industrials (272)	Germany	157.50	1.0	2,217	7.1	4.5	
107	Elan	Pharmaceuticals (4577)	Ireland	155.67	17.9	353	44.1	-104.5	
108	Wacker-Chemie	Chemicals (135)	Germany	152.50	0.1	3,781	4.0	16.4	
109	Sage	Software (9537)	UK	151.67	17.4	1,576	9.6	22.2	
110	SAAB	Aerospace & defence (271)	Sweden	147.73	42.3	2,436	6.1	9.6	
111	ArcelorMittal	Industrial metals (175)	Luxembourg	146.37	122.9	71,964	0.2	15.0	
112	Kerry	Food producers (357)	Ireland	145.24	4.5	4,788	3.0	7.1	
113	Zodiac	Aerospace & defence (271)	France	145.19	30.9	2,478	5.9	14.0	
114	Fujitsu Siemens Computers	Computer services (9533)	The Netherlands	145.10	9.6	6,952	2.1	1.0	
115	Danone	Food producers (357)	France	142.00	12.7	14,705	1.0	14.2	
116	Indra Sistemas	Computer services (9533)	Spain	141.05	46.3	2,168	6.5	10.1	
117	Bouygues	Construction & materials (235)	France	141.00	11.9	29,613	0.5	8.0	
118	Essilor International	Health care equipment & services (453)	France	137.67	7.9	2,908	4.7	18.3	
119	Invensys	Electronic equipment (2737)	UK	136.15	12.4	3,427	4.0	12.9	
120	Deutsche Post	Industrial transportation (277)	Germany	136.00	-0.7	57,125	0.2	5.0	
121	Trumpf	General industrials (272)	Germany	135.40	13.0	1,938	7.0	13.9	
122	Business Objects (now part of SAP, Germany)	Software (9537)	France	133.41	20.0	858	15.5	9.4	
123	BioMerieux	Health care equipment & services (453)	France	131.80	1.7	1,063	12.4	13.9	
124	Metro	General retailers (537)	Germany	130.00	16.1	65,888	0.2	3.1	
125	Symbian	Software (9537)	UK	127.99	34.3	264	48.5	18.9	
126	Vestas Wind Systems	Electrical components & equipment (2733)	Denmark	127.00	43.3	4,861	2.6	9.1	
126	Maxingvest	General retailers (537)	Germany	127.00	6.7	9,066	1.4	6.8	
128	Hexagon	Industrial machinery (2757)	Sweden	126.99	34.2	1,544	8.2	14.6	
129	RWE	Gas, water & multiutilities (757)	Germany	126.00	-6.7	42,654	0.3	14.4	
130	Umicore	Chemicals (135)	Belgium	124.57	21.3	9,505	1.3	2.9	
131	Drägerwerk	Health care equipment & services (453)	Germany	123.47	4.6	1,819	6.8	6.9	
132	Old Mutual	Life insurance (857)	UK	122.54	60.7	19,837	0.6	12.0	
133	Wartsila	Commercial vehicles & trucks (2753)	Finland	122.00	43.9	3,763	3.2	9.7	
133	Telecom Italia	Fixed line telecommunications (653)	Italy	122.00	-8.3	31,290	0.4	18.6	
135	Danieli	Industrial machinery (2757)	Italy	120.50	430.8	1,602	7.5	8.7	
136	Reckitt Benckiser	Household goods (372)	UK	119.81	7.3	7,174	1.7	21.0	
137	Novozymes	Biotechnology (4573)	Denmark	119.49	12.2	998	12.0	19.8	
138	Danfoss	Industrial machinery (2757)	Denmark	119.22	20.3	3,049	3.9	7.7	
139	Vattenfall	Electricity (753)	Sweden	119.16	28.7	15,201	0.8	19.9	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
140	Tognum	Automobiles & parts (335)	Germany	117.90	-4.4	2,835	4.2	12.2	
141	B Braun Melsungen	Health care equipment & services (453)	Germany	116.25	9.9	3,573	3.3	9.7	
142	BHP Billiton	Mining (177)	UK	115.59	122.4	27,015	0.4	46.2	
143	ZF Lenksysteme	Automobiles & parts (335)	Germany	114.20	23.6	2,625	4.4	3.7	
144	GKN	Automobiles & parts (335)	UK	113.01	10.7	5,268	2.1	6.2	
145	Genmab	Biotechnology (4573)	Denmark	112.20	67.6	71	158.0	-83.1	
146	Rhodia	Chemicals (135)	France	112.00	-5.1	5,135	2.2	7.8	
147	Deutsche Borse	Other financials (877)	Germany	111.30	6.0	2,454	4.5	49.3	
148	Metso	Industrial machinery (2757)	Finland	111.00	8.8	6,250	1.8	9.0	
149	Claas	Commercial vehicles & trucks (2753)	Germany	109.62	10.3	2,659	4.1	7.0	
150	Benteler	General industrials (272)	Germany	109.30	2.1	6,319	1.7	4.2	
151	Reed Elsevier	Media (555)	UK	108.92	-25.9	7,265	1.5	18.7	
152	Krones	Industrial machinery (2757)	Germany	106.49	7.6	2,156	4.9	7.0	
153	Gemalto	Electronic equipment (2737)	The Netherlands	106.06	20.0	1,629	6.5	-4.3	
154	Basell AF	Chemicals (135)	Luxembourg	105.00	60.7	10,495	1.0	6.7	
155	Corus (now part of Tata Iron & Steel, India)	Industrial metals (175)	UK	103.47	15.1	14,187	0.7	4.5	
156	Italtel	Telecommunications equipment (9578)	Italy	103.41	-1.4	543	19.0	2.0	
157	Serco	Support services (279)	UK	102.79	-2.3	3,827	2.7	4.8	
158	Stora Enso	Forestry & paper (173)	Finland	101.60	24.4	15,144	0.7	1.4	
159	Almirall	Pharmaceuticals (4577)	Spain	101.40	82.7	792	12.8	15.4	
160	ARM	Semiconductors (9576)	UK	100.45	-1.2	353	28.5	15.3	
161	Giesecke & Devrient	Support services (279)	Germany	100.29	30.4	1,551	6.5	10.3	
162	Vilmorin	Food producers (357)	France	100.10	124.4	939	10.7	10.1	
163	Suez (now part of GDF Suez)	Gas, water & multiutilities (757)	France	99.60	15.8	47,475	0.2	11.6	
164	Grundfos	Industrial machinery (2757)	Denmark	98.75	19.2	2,255	4.4	8.9	
165	SKF	Industrial machinery (2757)	Sweden	98.52	3.1	6,197	1.6	12.8	
166	Misys	Software (9537)	UK	98.16	-18.6	712	13.8	11.8	
167	Smith & Nephew	Health care equipment & services (453)	UK	97.12	18.3	2,304	4.2	14.9	
168	Linde	Chemicals (135)	Germany	97.00	-61.8	12,670	0.8	9.0	
169	Wincor Nixdorf	Computer services (9533)	Germany	96.57	10.4	2,145	4.5	8.0	
170	Danisco	Food producers (357)	Denmark	96.43	-10.5	2,557	3.8	8.8	
171	CSR	Semiconductors (9576)	UK	96.39	28.9	580	16.6	17.8	
172	Dexia	Banks (835)	Belgium	96.00	35.2	6,788	1.4	42.6	
173	Burelle	Automobiles & parts (335)	France	95.74	-9.1	2,849	3.4	3.1	
174	SCI Entertainment	Software (9537)	UK	93.26	19.3	196	47.6	-21.9	
175	voestalpine	Industrial metals (175)	Austria	92.90	40.8	10,617	0.9	10.9	
176	Johnson Matthey	Chemicals (135)	UK	92.72	7.2	10,209	0.9	3.9	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
177	Veolia Environnement	Gas, water & multiutilities (757)	France	90.90	20.9	32,694	0.3	7.3	
178	Alliance & Leicester	Banks (835)	UK	90.40	61.5	1,941	4.7	28.0	
179	Orion	Food & drug retailers (533)	Finland	90.00	14.5	684	13.2	27.5	
180	MTU Aero Engines	Aerospace & defence (271)	Germany	88.80	10.2	2,576	3.4	9.4	
181	Marks & Spencer	General retailers (537)	UK	88.63	40.9	12,283	0.7	13.1	
182	Nordea Bank	Banks (835)	Sweden	88.00	-12.0	7,886	1.1	49.2	
182	Lanxess	Chemicals (135)	Germany	88.00	1.1	6,608	1.3	5.4	
184	Merial	Biotechnology (4573)	UK	86.93	-13.0	1,501	5.8	23.2	
185	Gaz De France (now GDF Suez)	Gas, water & multiutilities (757)	France	86.00	2.4	27,427	0.3	14.1	
185	Korber	General industrials (272)	Germany	86.00	-9.5	1,601	5.4	10.4	
187	adidas	Personal goods (376)	Germany	84.00	-14.3	10,299	0.8	9.0	
188	Symrise	Chemicals (135)	Germany	82.85	5.8	1,274	6.5	15.4	
189	ASM International	Semiconductors (9576)	The Netherlands	82.60	-8.8	955	8.6	15.4	
190	Assa Abloy	Construction & materials (235)	Sweden	82.12	7.9	3,550	2.3	16.1	
191	Barco	Electronic equipment (2737)	Belgium	81.33	2.6	827	9.8	7.7	
192	Cadbury Schweppes (now Cadbury)	Food producers (357)	UK	80.33	-14.5	10,853	0.7	9.9	
193	Ineos	Chemicals (135)	UK	78.10	306.8	26,587	0.3	3.5	
194	Schott	Construction & materials (235)	Germany	77.77	-27.4	2,159	3.6	-1.1	
195	TDC	Fixed line telecommunications (653)	Denmark	77.65	-14.7	5,832	1.3	12.0	
196	SNCF	Industrial transportation (277)	France	77.00	16.7	23,691	0.3	7.8	
196	Repsol YPF	Oil & gas producers (53)	Spain	77.00	6.9	52,098	0.1	10.4	
198	Cobham	Aerospace & defence (271)	UK	75.16	12.0	1,445	5.2	15.5	
199	KWS SAAT	Food producers (357)	Germany	73.64	-0.1	538	13.7	11.5	
200	Industria de Turbo Propulsores	Aerospace & defence (271)	Spain	72.47	3.7	447	16.2	1.3	
201	GN Store Nord	Telecommunications equipment (9578)	Denmark	72.29	35.1	802	9.0	-0.6	
202	Meggitt	Aerospace & defence (271)	UK	72.02	41.0	1,196	6.0	16.2	
203	IMMSI	Automobiles & parts (335)	Italy	71.70	7.0	1,846	3.9	6.6	
204	Gedeon Richter	Pharmaceuticals (4577)	Hungary	71.45	24.7	886	8.1	16.5	
205	Tomkins	General industrials (272)	UK	70.66	-1.7	4,114	1.7	8.2	
206	Eberspaecher	Automobiles & parts (335)	Germany	70.20	10.6	2,250	3.1	3.5	
207	Royal & Sun Alliance (now RSA Insurance)	Nonlife insurance (853)	UK	69.44	-45.7	8,788	0.8	10.4	
208	Dyson James	Household goods (372)	UK	69.33	43.2	701	9.9	16.1	
209	E.ON	Gas, water & multiutilities (757)	Germany	69.00	155.6	68,935	0.1	12.8	
210	ALTANA	Chemicals (135)	Germany	67.44	-86.4	1,380	4.9	11.7	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
211	Tomtom	Electronic equipment (2737)	The Netherlands	67.41	79.6	1,737	3.9	24.7	
212	SCA	Forestry & paper (173)	Sweden	67.09	5.7	11,208	0.6	9.4	
213	Bank of Ireland	Banks (835)	Ireland	67.00	-18.3	5,035	1.3	37.6	
214	TietoEnator	Computer services (9533)	Finland	66.90	-7.7	1,772	3.8	-0.2	
215	Sick	Electronic equipment (2737)	Germany	66.61	16.6	708	9.4	9.9	
216	Getinge	Health care equipment & services (453)	Sweden	66.56	30.9	1,740	3.8	13.9	
217	Danske Bank	Banks (835)	Denmark	66.25	9.8	9,298	0.7	27.8	
218	Bang & Olufsen	Leisure goods (374)	Denmark	66.18	-3.6	587	11.3	12.1	
219	Software	Software (9537)	Germany	65.90	46.9	621	10.6	22.9	
220	Iberdrola	Electricity (753)	Spain	65.00	16.1	17,468	0.4	21.1	
221	Deutz	Industrial machinery (2757)	Germany	64.90	-2.4	1,731	3.7	6.0	
222	Biovitrum	Biotechnology (4573)	Sweden	64.54	34.5	133	48.5	3.8	
223	DONG Energy	Oil & gas producers (53)	Denmark	64.24	128.1	5,582	1.2	10.2	
224	EPCOS	Electronic equipment (2737)	Germany	64.16	-16.3	1,447	4.4	5.5	
225	Cognis Deutschland	Chemicals (135)	Germany	64.00	0.0	3,518	1.8	5.1	
226	Sorin	Health care equipment & services (453)	Italy	63.51	11.3	785	8.1	-6.8	
227	Spirent Communications	Telecommunications equipment (9578)	UK	63.04	-20.2	328	19.2	3.7	
228	Alfa Laval	Industrial machinery (2757)	Sweden	62.44	12.2	2,630	2.4	18.7	
229	William Demant	Health care equipment & services (453)	Denmark	62.37	11.1	736	8.5	21.9	
230	Pace Micro Technology (now Pace)	Leisure goods (374)	UK	61.96	58.2	526	11.8	1.9	
231	Spectris	Electrical components & equipment (2733)	UK	61.54	1.1	910	6.8	15.3	
232	Koenig & Bauer	Industrial machinery (2757)	Germany	61.20	-3.2	1,704	3.6	3.5	
233	Kemira	Chemicals (135)	Finland	60.80	18.5	2,810	2.2	4.5	
234	Nexans	Electrical components & equipment (2733)	France	60.00	9.1	7,412	0.8	4.8	
235	CGGVeritas	Oil equipment, services & distribution (57)	France	59.50	20.0	2,374	2.5	20.6	
236	Gameloft	Software (9537)	France	59.18	43.6	96	61.6	-5.2	
237	Krka	Pharmaceuticals (4577)	Slovenia	59.07	12.2	781	7.6	23.4	
238	British Sky Broadcasting	Media (555)	UK	58.55	115.0	6,196	0.9	18.2	
239	Avio	Aerospace & defence (271)	Italy	57.95	-9.9	1,541	3.8	9.1	
240	Salzgitter	Industrial metals (175)	Germany	57.80	-0.9	10,192	0.6	12.6	
241	PUMA	Personal goods (376)	Germany	57.50	1.4	2,374	2.4	15.7	
242	Bekaert	Industrial metals (175)	Belgium	56.70	14.4	2,174	2.6	9.9	
243	Amer Sports	Leisure goods (374)	Finland	56.20	-3.9	1,652	3.4	2.7	
244	Valentino Fashion	Personal goods (376)	Italy	56.01	129.0	1,963	2.9	12.2	
245	Leoni	Electrical components & equipment (2733)	Germany	54.99	20.9	2,367	2.3	5.5	
246	Abengoa	General industrials (272)	Spain	54.59	134.9	3,214	1.7	8.7	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
247	Trelleborg	General industrials (272)	Sweden	53.76	-16.7	3,278	1.6	4.9	
248	Grammer	Automobiles & parts (335)	Germany	53.07	13.7	998	5.3	3.1	
249	Wendel	Other financials (877)	France	52.40	43.9	5,472	1.0	4.7	
250	Telekom Austria	Fixed line telecommunications (653)	Austria	52.02	19.1	4,919	1.1	15.4	
251	Zeltia	Pharmaceuticals (4577)	Spain	51.69	4.0	85	60.8	-58.8	
252	Infogrames Entertainment	Software (9537)	France	51.50	-36.2	307	16.8	-27.4	
253	Husqvarna	Industrial machinery (2757)	Sweden	50.90	24.6	3,522	1.4	10.6	
254	Kone	Industrial machinery (2757)	Finland	50.70	0.8	4,079	1.2	7.6	
255	Patria	Aerospace & defence (271)	Finland	50.60	3.9	541	9.4	7.0	
256	GEA	Industrial machinery (2757)	Germany	50.21	5.1	5,913	0.8	5.2	
257	UPM-Kymmene	Forestry & paper (173)	Finland	50.00	13.6	10,035	0.5	3.2	
258	Stork	Industrial machinery (2757)	The Netherlands	49.48	2.6	2,163	2.3	2.8	
259	Stada Arzneimittel	Pharmaceuticals (4577)	Germany	49.22	25.0	1,570	3.1	11.3	
260	Recordati	Pharmaceuticals (4577)	Italy	49.12	8.2	628	7.8	20.9	
261	Borealis	Support services (279)	Austria	49.00	8.9	6,350	0.8	9.0	
262	Neopost	Electronic office equipment (9574)	France	47.60	-6.3	907	5.2	23.9	
263	Autonomy	Software (9537)	UK	47.39	26.3	235	20.2	25.1	
264	Rio Tinto	Mining (177)	UK	47.19	359.9	20,314	0.2	34.2	
265	Mundipharma Research	Pharmaceuticals (4577)	UK	47.18	44.1	60	78.6	8.3	
266	HeidelbergCement	Construction & materials (235)	Germany	47.00	4.4	12,235	0.4	16.9	
267	Groupe SEB	Household goods (372)	France	46.80	17.3	2,870	1.6	8.3	
268	Cargotec	Industrial machinery (2757)	Finland	46.40	47.3	3,018	1.5	6.7	
269	Ingenico	Electronic equipment (2737)	France	46.19	7.6	568	8.1	9.9	
270	NicOx	Pharmaceuticals (4577)	France	46.11	61.4	21	219.6	-176.2	
271	Christian Dior	Personal goods (376)	France	46.00	7.0	17,245	0.3	20.7	
272	Crucell	Biotechnology (4573)	The Netherlands	45.62	-14.1	204	22.4	-29.4	
273	Prysmian	Electrical components & equipment (2733)	Italy	45.54	8.7	5,118	0.9	9.9	
274	Andritz	Industrial machinery (2757)	Austria	45.40	28.2	3,282	1.4	5.9	
275	KBC	Banks (835)	Belgium	45.00	-42.3	13,271	0.3	33.0	
276	OMX (now part of Nasdaq OMX, USA)	Other financials (877)	Sweden	44.98	104.4	430	10.5	27.9	
277	Bull	Computer hardware (9572)	France	44.90	-2.4	1,117	4.0	0.1	
278	Sartorius	Biotechnology (4573)	Germany	44.83	18.8	589	7.6	6.1	
279	JCB Service	Commercial vehicles & trucks (2753)	UK	44.52	17.1	2,266	2.0	6.3	
280	Lafarge	Construction & materials (235)	France	44.00	7.3	17,614	0.2	17.6	
281	Elekta	Health care equipment & services (453)	Sweden	43.81	11.6	479	9.1	11.7	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
282	Tate & Lyle	Food producers (357)	UK	43.57	45.5	4,862	0.9	8.5	
283	ALK-Abello	Pharmaceuticals (4577)	Denmark	43.32	-10.3	222	19.5	13.1	
284	Qiagen	Biotechnology (4573)	The Netherlands	43.18	54.9	444	9.7	12.8	
285	Coloplast	Health care equipment & services (453)	Denmark	42.78	34.6	1,116	3.8	9.3	
286	Fincantieri	Commercial vehicles & trucks (2753)	Italy	42.70	-9.5	1,734	2.5	6.5	
287	Kontron	Computer hardware (9572)	Germany	42.61	-0.5	447	9.5	9.2	
288	ADVA	Telecommunications equipment (9578)	Germany	42.49	40.8	251	16.9	-7.6	
289	Gildemeister	Industrial machinery (2757)	Germany	42.45	6.4	1,562	2.7	8.1	
290	Alizyme	Biotechnology (4573)	UK	42.39	69.8	<0.5			
291	Elektrobit	Electronic equipment (2737)	Finland	42.27	69.5	160	26.4	-17.5	
292	Tenaris	Oil equipment, services & distribution (57)	Luxembourg	42.20	31.5	7,031	0.6	30.1	
293	Sud-Chemie	Chemicals (135)	Germany	42.10	12.3	1,075	3.9	8.9	
294	Technip	Oil equipment, services & distribution (57)	France	42.00	20.3	7,887	0.5	3.2	
295	IMI	Industrial machinery (2757)	UK	41.80	-10.0	2,177	1.9	10.7	
296	Experian	Support services (279)	UK	41.72	29.8	2,825	1.5	17.1	
297	Jenoptik	Industrial machinery (2757)	Germany	41.30	-2.7	522	7.9	4.6	
298	Belgacom	Fixed line telecommunications (653)	Belgium	41.00	0.0	5,987	0.7	20.8	
299	Jungheinrich	Commercial vehicles & trucks (2753)	Germany	40.97	-6.6	2,001	2.0	7.0	
300	Caixa Geral de Depositos	Banks (835)	Portugal	40.69	20.0	3,149	1.3	34.1	
301	Ultra Electronics	Aerospace & defence (271)	UK	39.82	41.9	562	7.1	14.2	
302	Energie Baden	Electricity (753)	Germany	39.70	82.1	14,809	0.3	12.3	
303	GPC Biotech	Biotechnology (4573)	Germany	39.64	-31.2	18	220.2	-405.6	
304	Arcandor	General retailers (537)	Germany	39.11	272.1	16,054	0.2	3.9	
305	Acciona	Construction & materials (235)	Spain	39.02	72.7	7,953	0.5	11.3	
306	NKT	Electrical components & equipment (2733)	Denmark	39.01	-2.0	1,814	2.2	7.3	
307	Grupo Ferrovial	Construction & materials (235)	Spain	38.50	1,126.1	14,630	0.3	13.4	
308	Ktm Power Sports	Automobiles & parts (335)	Austria	37.53	22.2	566	6.6	6.2	
309	KUKA	Industrial machinery (2757)	Germany	37.22	-15.9	1,374	2.7	5.2	
310	Eramet	Industrial metals (175)	France	37.00	5.7	3,792	1.0	29.9	
311	Evotec	Pharmaceuticals (4577)	Germany	36.77	10.0	54	68.1	-103.7	
312	Imagination Technologies	Semiconductors (9576)	UK	36.58	14.7	75	48.8	2.7	
313	NATS	Industrial transportation (277)	UK	36.49	14.0	955	3.8	18.6	
313	SkyePharma	Pharmaceuticals (4577)	UK	36.49	-15.2	58	62.9	-44.8	
315	Sudzucker	Food producers (357)	Germany	36.30	-8.1	5,780	0.6	3.7	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
316	Voca	Support services (279)	UK	35.69	-10.4	121	29.5	7.4	
317	Otto	General retailers (537)	Germany	35.53	207.1	14,492	0.2	3.4	
318	Akka Technologies	Computer services (9533)	France	35.50	313.8	236	15.0	4.7	
319	Centrica	Gas, water & multiutilities (757)	UK	35.40	-65.3	22,307	0.2	13.6	
320	Unit 4 Agresso	Software (9537)	The Netherlands	35.18	25.4	379	9.3	5.5	
321	Allergy Therapeutics	Pharmaceuticals (4577)	UK	34.50	165.0	35	98.6	-105.7	
322	Acambis	Biotechnology (4573)	UK	34.45	-31.6	13	265.0	-338.5	
323	IBS	Software (9537)	Sweden	34.32	2.2	239	14.4	1.7	
324	Beru	Automobiles & parts (335)	Germany	34.30	2.8	451	7.6	9.1	
325	Laird	Electrical components & equipment (2733)	UK	34.17	20.1	868	3.9	9.9	
326	Biotest	Pharmaceuticals (4577)	Germany	34.11	30.8	326	10.5	11.7	
327	Boliden	Mining (177)	Sweden	34.08	49.8	3,514	1.0	16.3	
328	CSM	Food producers (357)	The Netherlands	34.00	15.6	2,544	1.3	2.0	
329	Lottomatica	Travel & leisure (575)	Italy	33.90	113.2	1,661	2.0	23.8	
330	Sophos	Software (9537)	UK	33.88	23.6	114	29.7	-9.6	
331	LEGO	Leisure goods (374)	Denmark	33.80	24.8	1,076	3.1	18.0	
332	Rockwool International	Construction & materials (235)	Denmark	33.76	33.8	1,865	1.8	19.7	
333	Wavecom	Telecommunications equipment (9578)	France	33.56	7.8	202	16.6	6.4	
334	Somfy	Electrical components & equipment (2733)	France	33.40	20.1	720	4.6	20.1	
335	Zumtobel	Electronic equipment (2737)	Austria	33.35	8.0	1,282	2.6	8.7	
336	Intercell	Biotechnology (4573)	Austria	33.34	18.6	48	69.5	-8.3	
337	Simcorp	Software (9537)	Denmark	33.13	21.3	161	20.6	24.2	
338	ICAP	Other financials (877)	UK	33.08	89.8	1,747	1.9	21.4	
339	ELMOS Semiconductor	Semiconductors (9576)	Germany	32.75	5.8	176	18.6	6.3	
340	Egis Pharmaceuticals	Pharmaceuticals (4577)	Hungary	32.20	12.2	464	6.9	7.8	
341	Deutsche Bank	Banks (835)	Germany	32.00	255.6	30,745	0.1	28.5	
342	Renishaw	Electronic equipment (2737)	UK	31.90	10.0	246	13.0	27.2	
343	Cookson	General industrials (272)	UK	31.45	-2.9	2,207	1.4	10.2	
344	SGL Carbon	Electrical components & equipment (2733)	Germany	31.40	15.4	1,373	2.3	18.7	
345	ElringKlinger	Automobiles & parts (335)	Germany	31.20	16.3	608	5.1	20.1	
346	KSB	Industrial machinery (2757)	Germany	31.19	11.6	1,771	1.8	7.6	
347	De La Rue	Support services (279)	UK	31.04	0.4	1,026	3.0	16.3	
348	Gamesa	Industrial machinery (2757)	Spain	30.91	-6.7	3,260	0.9	7.7	
349	ISOFT	Software (9537)	UK	30.62	-3.4	239	12.8	-8.4	
350	Option	Telecommunications equipment (9578)	Belgium	30.61	64.7	302	10.1	1.0	
351	Wolfson Microelectronics	Semiconductors (9576)	UK	30.37	33.4	158	19.2	15.8	
352	Oxford Biomedica	Pharmaceuticals (4577)	UK	30.15	13.4	10	301.5	-270.0	
353	Komerční banka	Banks (835)	Czech Republic	29.94	2.9	1,116	2.7	48.3	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
354	Sporting Exchange	Travel & leisure (575)	UK	29.86	83.6	248	12.0	10.1	
355	LogicaCMG (now Logica)	Computer services (9533)	UK	29.54	-46.0	4,302	0.7	3.1	
356	Haldex	Automobiles & parts (335)	Sweden	29.42	-12.3	840	3.5	3.7	
357	De'Longhi	Household goods (372)	Italy	29.18	763.3	1,491	2.0	8.2	
358	Nemetschek	Software (9537)	Germany	29.17	47.3	146	20.0	16.4	
359	NeuroSearch	Biotechnology (4573)	Denmark	29.10	34.9	15	194.0	-253.3	
360	Enel	Electricity (753)	Italy	29.00	7.4	42,695	0.1	16.0	
360	Royal Friesland Foods	Food producers (357)	The Netherlands	29.00	20.8	5,075	0.6	5.2	
360	Metsaliitto	Forestry & paper (173)	Finland	29.00	-9.1	8,944	0.3	-1.5	
360	AVEVA	Software (9537)	UK	29.00	21.0	174	16.7	33.9	
364	Thrane & Thrane	Telecommunications equipment (9578)	Denmark	28.91	28.5	168	17.2	4.8	
365	FLSmidth	Construction & materials (235)	Denmark	28.16	24.2	2,692	1.0	8.3	
366	Anglo American	Mining (177)	UK	28.04	-10.9	20,199	0.1	29.8	
367	Finatis	Food & drug retailers (533)	France	28.00	833.3	23,291	0.1	4.5	
367	Rautaruukki	Industrial metals (175)	Finland	28.00	27.3	3,876	0.7	16.4	
367	Neste Oil	Oil & gas producers (53)	Finland	28.00	27.3	12,103	0.2	6.5	
370	Fidessa	Software (9537)	UK	27.92	67.2	184	15.2	12.0	
371	Renovo	Biotechnology (4573)	UK	27.84	80.7	1	2,784.0	-3,600.0	
372	Same Deutz-Fahr	Commercial vehicles & trucks (2753)	Italy	27.67	6.9	1,100	2.5	10.6	
373	Funkwerk	Support services (279)	Germany	27.38	126.3	291	9.4	4.5	
374	Transgene	Biotechnology (4573)	France	27.12	30.6	26	104.3	-30.8	
375	Telelogic	Software (9537)	Sweden	27.09	11.0	182	14.9	18.1	
376	Tessenderlo	Chemicals (135)	Belgium	27.00	-3.6	2,406	1.1	5.6	
377	Paul Hartmann	Health care equipment & services (453)	Germany	26.50	-0.4	1,281	2.1	4.4	
378	Guerbet	Pharmaceuticals (4577)	France	26.47	9.0	306	8.7	11.8	
379	Curalogic	Biotechnology (4573)	Denmark	26.33	502.5	0			
380	Eureko	Life insurance (857)	The Netherlands	26.00	39.8	17,621	0.1	5.9	
380	Accor	Travel & leisure (575)	France	26.00	13.0	8,121	0.3	10.4	
382	Wilo	Industrial machinery (2757)	Germany	25.86	13.7	927	2.8	10.5	
383	Singulus Technologies	Industrial machinery (2757)	Germany	25.57	-3.1	223	11.5		
384	Halma	Electronic equipment (2737)	UK	25.44	22.0	542	4.7	17.7	
385	Medigene	Biotechnology (4573)	Germany	25.36	89.3	22	115.3	-145.5	
386	Meda	Pharmaceuticals (4577)	Sweden	25.29	71.3	862	2.9	20.5	
387	Protherics	Biotechnology (4573)	UK	25.11	31.9	35	71.7	-77.1	
388	Indesit	Household goods (372)	Italy	25.00	1.6	3,438	0.7	5.4	
389	Napp Pharmaceutical	Pharmaceuticals (4577)	UK	24.96	103.6	211	11.8	7.1	
390	CEGID	Software (9537)	France	24.92	18.0	241	10.3	13.7	
391	Q-Med	Biotechnology (4573)	Sweden	24.91	22.6	139	17.9	12.9	
392	Servier	Biotechnology (4573)	UK	24.85	68.7	25	99.4	4.0	
393	Northgate Information Solutions	Computer services (9533)	UK	24.82	11.6	479	5.2	12.9	
394	Vernalis	Biotechnology (4573)	UK	24.81	-11.6	34	73.0	-158.8	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
395	Campina	Food producers (357)	The Netherlands	24.70	-7.1	4,032	0.6	1.5	
396	Anite	Computer services (9533)	UK	24.66	25.1	237	10.4	14.8	
397	Cattles	Other financials (877)	UK	24.64	-4.8	1,119	2.2	20.1	
398	Lifecycle Pharma	Biotechnology (4573)	Denmark	24.62	41.9	9	273.6	-255.6	
399	Aeffe	Personal goods (376)	Italy	24.60		293	8.4	11.6	
400	BIC	Household goods (372)	France	24.50	4.3	1,456	1.7	17.4	
401	Melexis	Semiconductors (9576)	Belgium	24.37	18.8	204	11.9	19.6	
401	GfK	Support services (279)	Germany	24.37	248.1	1,162	2.1	12.0	
403	Genus	Biotechnology (4573)	UK	24.10	34.9	358	6.7	12.0	
404	Datalogic	Electronic equipment (2737)	Italy	24.03	-5.8	404	5.9	7.9	
405	Munich Re	Nonlife insurance (853)	Germany	24.00	-76.7	47,323	0.1	10.0	
406	Ilog	Software (9537)	France	23.96	21.3	110	21.8	1.8	
407	Ahlstrom	Chemicals (135)	Finland	23.90	-4.4	1,761	1.4	0.5	
408	Innogenetics	Biotechnology (4573)	Belgium	23.86	-6.6	54	44.2	-29.6	
409	Parrot	Telecommunications equipment (9578)	France	23.83	51.9	220	10.8	12.3	
410	Energia de Portugal	Electricity (753)	Portugal	23.71	-38.5	11,011	0.2	13.8	
411	Fuchs Petrolub	Chemicals (135)	Germany	23.70	7.2	1,365	1.7	14.3	
412	Clarins	Personal goods (376)	France	23.63	4.1	1,008	2.3	11.3	
413	Novomatic	Travel & leisure (575)	Austria	23.56	13.1	960	2.5	26.1	
414	IMA Industria Macchine Automatiche	Industrial machinery (2757)	Italy	23.45	12.5	465	5.0	14.6	
415	Saft	Electrical components & equipment (2733)	France	23.30	-1.3	601	3.9	10.3	
416	Diageo	Beverages (353)	UK	23.15	-5.5	10,185	0.2	30.3	
416	Standard Life	Life insurance (857)	UK	23.15	41.7	13,769	0.2	6.1	
418	Vectura	Pharmaceuticals (4577)	UK	23.14	111.7	19	121.8	-89.5	
419	Vaisala	Electronic equipment (2737)	Finland	23.10	12.1	224	10.3	15.6	
420	Aixtron	Semiconductors (9576)	Germany	22.99	19.4	215	10.7	8.4	
421	Austriamicrosystems	Electrical components & equipment (2733)	Austria	22.95	-33.2	179	12.8	12.3	
422	BRE Bank	Banks (835)	Poland	22.91	46.7	589	3.9	38.0	
423	Seton House	Support services (279)	UK	22.87	-37.1	521	4.4	2.1	
424	Post Danmark	Industrial transportation (277)	Denmark	22.80	-34.1	1,584	1.4	6.9	
425	Itella	Industrial transportation (277)	Finland	22.70	-17.8	1,688	1.3	5.9	
426	Hunter Douglas	Household goods (372)	The Netherlands	22.57	22.2	2,071	1.1	10.7	
427	Pharmexa	Biotechnology (4573)	Denmark	22.51	1.7	1	2,251.0	-2,600.0	
428	MGI Coutier	Automobiles & parts (335)	France	22.50	4.2	463	4.9	4.1	
429	Wilex	Biotechnology (4573)	Germany	22.31	48.5	2	1,115.5	-1,250.0	
430	Morphosys	Biotechnology (4573)	Germany	22.24	27.4	62	35.9	12.9	
431	Oxford Instruments	Electronic equipment (2737)	UK	22.06	0.0	240	9.2	4.2	
432	LKAB	Mining (177)	Sweden	22.01	33.3	1,734	1.3	37.5	
433	YIT	Support services (279)	Finland	22.00	4.0	3,707	0.6	8.6	
434	BBC	Media (555)	UK	21.92	10.3	6,011	0.4	0.0	
435	Seco Tools	Industrial machinery (2757)	Sweden	21.91	6.2	639	3.4	24.7	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
436	Axis	Computer hardware (9572)	Sweden	21.85	19.1	177	12.3		21.5
437	Oberthur Technologies	Electronic equipment (2737)	France	21.80	19.0	734	3.0		7.2
438	Cez	Electricity (753)	Czech Republic	21.78	71.9	6,565	0.3		30.5
438	Wittington Investments	Other financials (877)	UK	21.78	33.3	9,359	0.2		8.1
440	Duerr	Industrial machinery (2757)	Germany	21.34	-9.9	1,478	1.4		3.1
441	Filtronic	Telecommunications equipment (9578)	UK	21.30	-43.4	179	11.9		-17.3
442	Fimalac	Support services (279)	France	21.29	-20.6	745	2.9		22.3
443	Wacker Construction Equipment	Industrial machinery (2757)	Germany	21.24	32.0	742	2.9		10.6
444	SSAB Svenskt Stal	Industrial metals (175)	Sweden	21.17	33.4	5,043	0.4		16.6
445	Severn Trent	Gas, water & multiutilities (757)	UK	21.10	268.9	2,114	1.0		25.7
445	RHI	Industrial machinery (2757)	Austria	21.10	7.1	1,486	1.4		11.0
447	Atlantia	Industrial transportation (277)	Italy	21.04	-3.9	3,269	0.6		49.6
448	Lycos Europe	Internet (9535)	The Netherlands	21.01	14.1	77	27.3		-57.1
449	Fortum	Electricity (753)	Finland	21.00	23.5	4,479	0.5		40.1
449	Micronic Laser Systems	Semiconductors (9576)	Sweden	21.00	-10.5	55	38.2		-56.4
451	DICOM (now Kofax)	Software (9537)	UK	20.83	21.4	218	9.6		5.5
452	Aliaxis	Construction & materials (235)	Belgium	20.77	4.5	2,405	0.9		12.0
452	Intec Telecom Systems	Software (9537)	UK	20.77	-2.6	170	12.2		-6.5
454	Raymarine	Electronic equipment (2737)	UK	20.63	19.9	192	10.7		19.3
455	Zentiva	Pharmaceuticals (4577)	Czech Republic	20.47	23.7	496	4.1		13.1
456	British Energy	Electricity (753)	UK	20.42	15.4	3,827	0.5		18.0
456	Rexam	General industrials (272)	UK	20.42	0.0	5,206	0.4		10.3
458	Eniro	Media (555)	Sweden	20.32	58.6	710	2.9		28.3
459	Britannia Building Society	Other financials (877)	UK	20.29	-7.4	512	4.0		18.4
460	RM	Software (9537)	UK	20.27	-0.2	369	5.5		5.7
461	Dialog Semiconductor	Semiconductors (9576)	UK	20.25	-3.1	59	34.3		-23.7
462	Industrial and Financial Systems	Software (9537)	Sweden	20.21	9.1	249	8.1		6.0
463	Delhaize	Food & drug retailers (533)	Belgium	20.20	-2.4	19,078	0.1		4.9
464	Wanderer-Werke	Industrial machinery (2757)	Germany	20.12		578	3.5		4.5
465	InBev	Beverages (353)	Belgium	20.00	17.6	14,430	0.1		26.1
466	F-Secure	Computer services (9533)	Finland	19.97	-9.8	97	20.6		19.6
467	Ark Therapeutics	Biotechnology (4573)	UK	19.93	12.4	2	996.5		-1,500.0
468	Antisoma	Biotechnology (4573)	UK	19.76	-2.9	11	179.6		-172.7
469	Uponor	Construction & materials (235)	Finland	19.70	19.4	1,219	1.6		12.1
470	Teligent	Software (9537)	Sweden	19.46	0.1	46	42.3		-84.8

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
471	Active Biotech	Biotechnology (4573)	Sweden	19.39	12.3	1	1,939.0	-2,200.0	
472	QinetiQ	Aerospace & defence (271)	UK	19.33	16.4	1,860	1.0	5.4	
472	Wagon	Automobiles & parts (335)	UK	19.33	61.4	967	2.0	-8.5	
474	Croda International	Chemicals (135)	UK	19.20	-3.4	1,294	1.5	9.7	
475	e2v Technologies	Electronic equipment (2737)	UK	19.19	24.4	279	6.9	9.0	
476	Exact	Software (9537)	The Netherlands	19.16	6.3	252	7.6	19.8	
477	Pharming	Biotechnology (4573)	The Netherlands	19.09	131.1	1	1,909.0	-3,400.0	
478	Enodis	Industrial machinery (2757)	UK	19.06	19.6	1,095	1.7	8.9	
479	Rallye	Food & drug retailers (533)	France	19.00	-32.1	26,381	0.1	4.5	
479	Franz Haniel & Cie	Pharmaceuticals (4577)	Germany	19.00	-9.5	29,173	0.1	4.7	
481	Muhlbauer	Electronic equipment (2737)	Germany	18.91	10.0	159	11.9	16.4	
482	Sepura	Telecommunications equipment (9578)	UK	18.82	11.8	93	20.2	18.3	
483	Karo Bio	Biotechnology (4573)	Sweden	18.79	75.9	1	1,879.0	-2,300.0	
483	A-Tec Industries	Industrial machinery (2757)	Austria	18.79	-10.9	2,361	0.8	4.0	
485	BE Semiconductor Industries	Semiconductors (9576)	The Netherlands	18.75	13.1	166	11.3	-3.6	
486	James Hardie Industries	Construction & materials (235)	The Netherlands	18.67	5.4	1,005	1.9	-2.5	
487	Innate Pharma	Biotechnology (4573)	France	18.66	51.7	9	207.3	-111.1	
488	Flamel Technologies	Biotechnology (4573)	France	18.58	9.4	25	74.3	-112.0	
489	Recticel	Chemicals (135)	Belgium	18.55	0.8	1,612	1.2	3.3	
490	ACTIELEC Technologies	Electronic equipment (2737)	France	18.43	10.4	251	7.3	5.2	
491	Demag Cranes	Industrial machinery (2757)	Germany	18.40	-14.7	1,080	1.7	7.5	
492	SanomaWSOY	Media (555)	Finland	18.30	61.9	2,926	0.6	10.7	
493	Outokumpu	Industrial metals (175)	Finland	18.00	5.9	7,512	0.2	7.4	
494	Auriga Industries	Chemicals (135)	Denmark	17.98	-23.6	726	2.5	3.2	
495	WET Automotive Systems	Automobiles & parts (335)	Germany	17.93	3.2	177	10.1	8.5	
496	Gyrus (now part of Olympus, Japan)	Health care equipment & services (453)	UK	17.82	-20.3	303	5.9	7.9	
497	Nutreco	Food producers (357)	The Netherlands	17.80	-26.1	4,053	0.4	3.8	
498	LM Glasfiber	Chemicals (135)	Denmark	17.77	41.3	578	3.1	-6.9	
499	SAES Getters	Electronic equipment (2737)	Italy	17.75	13.7	167	10.6	29.9	
500	National Grid	Gas, water & multiutilities (757)	UK	17.70	116.6	15,826	0.1	25.1	
501	Pohjolan Voima	Electricity (753)	Finland	17.60	5.4	766	2.3	-3.1	
502	Svenska Handelsbanken	Banks (835)	Sweden	17.57	134.0	3,044	0.6	53.2	
503	SBM Offshore	Oil equipment, services & distribution (57)	The Netherlands	17.49	3.9	1,964	0.9	10.6	
504	Psion	Computer hardware (9572)	UK	17.39	-5.2	272	6.4	4.8	
505	Huhtamaki	General industrials (272)	Finland	17.30	-10.4	2,311	0.7	0.8	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
506	Ion Beam Applications	Health care equipment & services (453)	Belgium	17.27	68.5	214	8.1	3.3	
507	Lectra	Software (9537)	France	17.26	-13.0	217	8.0	4.6	
508	Santaris Pharma	Biotechnology (4573)	Denmark	17.24	65.1	5	344.8	-300.0	
508	Nordex	Industrial machinery (2757)	Germany	17.24	53.2	747	2.3	5.1	
510	Q-Cells	Alternative energy (58)	Germany	17.20	126.0	859	2.0	23.4	
510	Soitec	Semiconductors (9576)	France	17.20	-34.3	298	5.8	-2.7	
512	LCH Clearnet	Other financials (877)	UK	17.18	7.3	501	3.4	52.3	
513	Teollisuuden Voima	Electricity (753)	Finland	17.10	8.9	232	7.4	-6.9	
514	GW Pharmaceuticals	Pharmaceuticals (4577)	UK	17.03	-4.5	8	212.9	-237.5	
515	Channel Four Television	Media (555)	UK	17.02	0.0	1,286	1.3	-0.9	
516	Unibel	Food producers (357)	France	16.94	17.4	1,965	0.9	6.3	
517	Thrombogenics	Biotechnology (4573)	Belgium	16.90	55.2	2	845.0	-900.0	
518	Chroma Therapeutics	Biotechnology (4573)	UK	16.69	47.6	<0.5			
518	Telekomunikacja Polska	Fixed line telecommunications (653)	Poland	16.69	13.2	5,074	0.3	17.8	
520	Bauer	Construction & materials (235)	Germany	16.33	135.3	1,033	1.6	12.9	
521	K+S	Chemicals (135)	Germany	16.32	12.5	3,344	0.5	-3.6	
522	Orexo	Pharmaceuticals (4577)	Sweden	16.12	65.8	8	201.5	-237.5	
523	Ducati Motor	Automobiles & parts (335)	Italy	16.11	100.9	398	4.0	5.3	
524	Micro Focus International	Software (9537)	UK	16.10	6.1	117	13.8	33.3	
525	888	Travel & leisure (575)	UK	16.07	21.2	146	11.0	15.1	
526	Miba	Automobiles & parts (335)	Austria	16.00	-13.5	388	4.1	7.5	
526	KPN	Fixed line telecommunications (653)	The Netherlands	16.00	-5.9	12,461	0.1	18.7	
526	Wurth	General industrials (272)	Germany	16.00	-43.3	8,489	0.2	8.0	
529	Vetco	Oil equipment, services & distribution (57)	UK	15.91	-4.3	2,141	0.7	1.9	
530	Astex Therapeutics	Biotechnology (4573)	UK	15.88	200.2	8	198.5	-262.5	
530	Schaltbau	Commercial vehicles & trucks (2753)	Germany	15.88	6.6	232	6.8	6.9	
532	EYBL International	Automobiles & parts (335)	Austria	15.69	8.7	333	4.7	2.1	
533	HKScan	Food producers (357)	Finland	15.60	83.5	2,107	0.7	2.6	
534	Aldata Solution	Software (9537)	Finland	15.47	-14.8	75	20.6	-14.7	
535	OMV	Oil & gas producers (53)	Austria	15.46	16.8	20,042	0.1	12.4	
536	Domino Printing Sciences	Electronic equipment (2737)	UK	15.42	3.5	315	4.9	13.7	
537	ESI	Software (9537)	France	15.41	4.1	69	22.3	8.7	
538	Carraro	Automobiles & parts (335)	Italy	15.31	2.1	814	1.9	4.8	
539	Tarkett	Construction & materials (235)	France	15.20	16.0	2,087	0.7	6.6	
540	Konecranes	Industrial machinery (2757)	Finland	15.10	20.8	1,750	0.9	9.9	
541	LISI	Aerospace & defence (271)	France	15.00	22.0	816	1.8	11.9	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
541	OP-Pohjola	Banks (835)	Finland	15.00	36.4	2,134	0.7	47.1	
541	Provimi	Food producers (357)	France	15.00	0.0	2,074	0.7	3.7	
544	Bioinvent	Biotechnology (4573)	Sweden	14.91	4.0	15	99.4	-13.3	
545	Intralot	Travel & leisure (575)	Greece	14.76	76.3	835	1.8	25.1	
546	Outotec	Industrial machinery (2757)	Finland	14.70	2.1	1,000	1.5	9.1	
547	ICOS Vision Systems (now part of Kla-Tencor, USA)	Semiconductors (9576)	Belgium	14.63	-1.5	80	18.3	6.3	
548	Sperian Protection	General industrials (272)	France	14.60	14.3	754	1.9	11.5	
549	Carlsberg	Beverages (353)	Denmark	14.48	2.8	6,001	0.2	9.6	
550	SNPE	Chemicals (135)	France	14.40	-27.3	693	2.1	-1.0	
551	Vanderlande Industries BV	Industrial machinery (2757)	The Netherlands	14.39	14.2	611	2.4	8.7	
552	Vacon	Electrical components & equipment (2733)	Finland	14.28	13.6	232	6.2	12.5	
553	Manitou BF	Commercial vehicles & trucks (2753)	France	14.26	31.5	1,260	1.1	9.9	
554	ComBOTS (now Kizoo)	Internet (9535)	Germany	14.25	-57.7	<0.5			
555	Conergy	Electricity (753)	Germany	14.24	34.2	749	1.9	-33.1	
556	Geox	Personal goods (376)	Italy	14.21		770	1.8	23.4	
557	Vitec	Industrial machinery (2757)	UK	14.16	5.0	373	3.8	9.7	
558	Cramer Systems (now Amdocs Systems)	Software (9537)	UK	14.15	62.8	78	18.1	5.1	
559	Topotarget	Biotechnology (4573)	Denmark	14.14	23.4	6	235.7	-500.0	
560	Valio	Food producers (357)	Finland	14.00	12.9	1,713	0.8	1.3	
561	SUESS MicroTec	Semiconductors (9576)	Germany	13.98	17.8	146	9.6	4.1	
562	Faiveley	Commercial vehicles & trucks (2753)	France	13.96	5.4	619	2.3	12.8	
563	Jerini	Pharmaceuticals (4577)	Germany	13.90	9.5	19	73.2	-168.4	
564	SSL International	Personal goods (376)	UK	13.89	15.9	727	1.9	13.8	
565	DiaSorin	Biotechnology (4573)	Italy	13.86	23.9	202	6.9	22.8	
566	Jil Sander	Personal goods (376)	Germany	13.83	43.0	129	10.7	-7.8	
567	IONA Technologies	Computer services (9533)	Ireland	13.76	26.1	53	26.0	-3.8	
568	Palfinger	Industrial machinery (2757)	Austria	13.70	11.4	696	2.0	15.2	
568	Skanditek	Other financials (877)	Sweden	13.70	10.5	72	19.0	26.4	
568	ProStrakan	Pharmaceuticals (4577)	UK	13.70	-6.0	62	22.1	-35.5	
571	Arla Foods	Food producers (357)	Denmark	13.68	43.7	6,403	0.2	3.2	
571	Tecnomen	Telecommunications equipment (9578)	Finland	13.68	12.2	70	19.5	12.9	
573	Paragon	Other financials (877)	UK	13.64	-11.7	257	5.3	48.2	
574	BTG	Biotechnology (4573)	UK	13.62	11.2	102	13.4	13.7	
574	KPMG LLP	Support services (279)	UK	13.62	233.0	2,188	0.6	27.3	
576	MessageLabs	Computer services (9533)	UK	13.59	-4.0	127	10.7	-10.2	
577	Cision	Support services (279)	Sweden	13.54	55.6	197	6.9	9.6	
578	UniCredit	Banks (835)	Italy	13.53	-80.1	26,411	0.1	32.9	
578	Tele Atlas	Media (555)	The Netherlands	13.53	43.3	308	4.4	8.1	
580	Enrichment Technology	Industrial machinery (2757)	UK	13.51	-15.0	189	7.1	4.2	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
581	Gewiss	Electrical components & equipment (2733)	Italy	13.48	-1.1	331	4.1		13.0
582	Nolato	Chemicals (135)	Sweden	13.44	-41.2	260	5.2		7.7
583	Grupo Empresarial ENCE	Forestry & paper (173)	Spain	13.38	63.2	623	2.1		10.3
583	REpower Systems	Industrial machinery (2757)	Germany	13.38	-4.6	680	2.0		4.1
585	SurfControl	Software (9537)	UK	13.37	50.7	70	19.1		-2.9
586	Endemol	Media (555)	The Netherlands	13.30	44.6	1,117	1.2		14.4
586	NPM/CNP	Other financials (877)	Belgium	13.30	3.5	12,964	0.1		5.0
588	Hikma Pharmaceuticals	Pharmaceuticals (4577)	UK	13.23	5.8	307	4.3		20.5
589	Archimedes Pharma	Pharmaceuticals (4577)	UK	13.21	44.5	26	50.8		-65.4
590	Basware	Software (9537)	Finland	13.17	25.9	73	18.0		9.6
591	Baxi	Construction & materials (235)	UK	13.16	-2.4	1,153	1.1		2.8
591	AGI Therapeutics	Pharmaceuticals (4577)	Ireland	13.16	273.9	<0.5			
593	Intercytex	Biotechnology (4573)	UK	13.10	12.3	<0.5			
594	Charter	Industrial machinery (2757)	UK	13.07	5.5	1,976	0.7		12.1
595	Commerzbank	Banks (835)	Germany	13.00		8,175	0.2		30.6
596	IDS Scheer	Software (9537)	Germany	12.97	24.8	394	3.3		9.1
597	TT electronics	Electrical components & equipment (2733)	UK	12.93	10.4	793	1.6		6.2
597	Northern Foods	Food producers (357)	UK	12.93	-14.4	1,269	1.0		4.6
599	Cardo	Construction & materials (235)	Sweden	12.81	-20.9	985	1.3		4.4
599	Fives	Industrial machinery (2757)	France	12.81	8.2	1,137	1.1		4.8
601	WMF	Household goods (372)	Germany	12.80	8.5	762	1.7		7.0
602	Radiall	Telecommunications equipment (9578)	France	12.72	-2.9	200	6.4		8.5
603	Vossloh	Industrial transportation (277)	Germany	12.70	-22.1	1,232	1.0		10.1
604	Brembo	Automobiles & parts (335)	Italy	12.50	10.2	912	1.4		9.2
604	Dynaction	Chemicals (135)	France	12.50	0.0	185	6.8		4.3
606	Hoganas	Industrial metals (175)	Sweden	12.49	0.9	618	2.0		10.4
607	Schouw	General industrials (272)	Denmark	12.45	24.1	1,129	1.1		5.1
608	Yule Catto	Chemicals (135)	UK	12.37	-13.4	770	1.6		10.0
609	Tekla	Software (9537)	Finland	12.34	66.8	59	20.9		28.8
610	Enea	Software (9537)	Sweden	12.32	18.1	87	14.2		9.2
611	Ubiquity Software (now part of Avaya, USA)	Software (9537)	UK	12.24	42.7	8	153.0		-262.5
612	Ohb Technology	Aerospace & defence (271)	Germany	12.21	48.5	219	5.6		8.7
613	Weir	Industrial machinery (2757)	UK	12.12	45.8	1,474	0.8		11.8
614	Ardana	Pharmaceuticals (4577)	UK	12.10	39.7	<0.5			
615	INDUS	General industrials (272)	Germany	12.00	6.3	930	1.3		10.9
615	Auchan	General retailers (537)	France	12.00	71.4	36,869	0.0		3.5
615	Talanx	Nonlife insurance (853)	Germany	12.00	158.6	18,790	0.1		7.1

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
615	Corporate Express (now part of Staples, USA)	Support services (279)	The Netherlands	12.00	-52.0	6,233	0.2	3.3	
615	Deutsche Bahn	Travel & leisure (575)	Germany	12.00	9.1	31,309	0.0	7.2	
620	Kesa Electricals	General retailers (537)	UK	11.98	158.7	6,128	0.2	4.0	
621	Biocompatibles International	Health care equipment & services (453)	UK	11.95	13.4	12	99.6	-75.0	
622	Bioalliance Pharma	Health care equipment & services (453)	France	11.87	69.3	4	296.8	-500.0	
623	Morgan Crucible	Electrical components & equipment (2733)	UK	11.85	6.2	944	1.3	11.2	
624	Rational	Household goods (372)	Germany	11.76	15.0	337	3.5	27.6	
625	Cegedim	Computer services (9533)	France	11.68	-2.8	753	1.6	6.0	
626	Plasmon	Computer hardware (9572)	UK	11.66	6.3	49	23.8	-40.8	
627	Francotyp-Postalia	Industrial machinery (2757)	Germany	11.52	-4.0	145	7.9	-2.1	
628	Nokian Tyres	Automobiles & parts (335)	Finland	11.50	27.8	1,025	1.1	22.7	
629	Martin-Baker (Engineering)	Aerospace & defence (271)	UK	11.45	8.5	159	7.2	16.4	
629	Summit	Pharmaceuticals (4577)	UK	11.45	186.3	4	286.3	-400.0	
629	Beta Systems Software	Software (9537)	Germany	11.45	-11.0	89	12.9	6.7	
629	NSB	Software (9537)	UK	11.45	-3.1	62	18.5	14.5	
633	P&I Personal & Informatik	Software (9537)	Germany	11.43	12.8	59	19.4	22.0	
634	Thielert	Aerospace & defence (271)	Germany	11.41	115.3	60	19.0	8.3	
635	JCB Compact Products	Commercial vehicles & trucks (2753)	UK	11.32	17.5	302	3.7	-7.3	
636	Plethora Solutions	Pharmaceuticals (4577)	UK	11.16	51.6	8	139.5	-187.5	
637	Nedap	Electronic equipment (2737)	The Netherlands	11.15	-1.6	146	7.6	13.7	
638	EL EN	Electronic equipment (2737)	Italy	11.11	25.8	193	5.8	10.4	
639	FAES Farma	Biotechnology (4573)	Spain	11.05	42.0	186	5.9	11.8	
640	Hamburger Hafen Und Logistik	Industrial transportation (277)	Germany	11.02	681.6	1,180	0.9	24.4	
641	Magix	Software (9537)	Germany	11.01	61.9	33	33.4	9.1	
642	Dynea	Chemicals (135)	Finland	10.90	10.1	1,156	0.9	4.9	
643	Chemring	Aerospace & defence (271)	UK	10.89	32.2	352	3.1	21.9	
643	BG	Oil & gas producers (53)	UK	10.89	-20.0	11,288	0.1	36.1	
645	Diamond Trading	General retailers (537)	UK	10.88	-1.4	4,015	0.3	1.7	
646	Telit Communications	Telecommunications equipment (9578)	UK	10.80	32.5	76	14.2	-11.8	
647	Ricardo	Support services (279)	UK	10.76	75.5	233	4.6	6.9	
648	Isra Vision	Industrial machinery (2757)	Germany	10.75	40.5	51	21.1	11.8	
649	Marzotto	Personal goods (376)	Italy	10.72	-23.2	300	3.6	5.0	
650	Chargeurs	Personal goods (376)	France	10.70	1.9	790	1.4	3.7	
651	NIBE Industrier	Household goods (372)	Sweden	10.68	4.2	572	1.9	9.8	
652	Delcam	Software (9537)	UK	10.66	7.5	40	26.7	5.0	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
653	JC Decaux	Media (555)	France	10.60	-13.1	2,107	0.5		17.1
654	Wuestenrot & Wurttemberg	Nonlife insurance (853)	Germany	10.59	97.6	5,605	0.2		4.8
655	AGRANA	Food producers (357)	Austria	10.54	-13.3	1,892	0.6		5.5
656	Head	Leisure goods (374)	The Netherlands	10.50	4.0	321	3.3		-0.3
657	Avecia Holdings	Biotechnology (4573)	UK	10.48	-25.2	90	11.6		-22.2
657	ARC International	Semiconductors (9576)	UK	10.48	14.3	20	52.4		-35.0
659	Coda (now part of Unit 4 Agresso, The Netherlands)	Software (9537)	UK	10.36	-18.1	80	13.0		20.0
660	DSG International	General retailers (537)	UK	10.35	-37.2	11,034	0.1		1.3
660	Vislink	Telecommunications equipment (9578)	UK	10.35	22.3	134	7.7		14.2
662	Villeroy & Boch	Household goods (372)	Germany	10.33	-15.0	929	1.1		2.3
663	Utimaco Safeware	Software (9537)	Germany	10.30	59.2	49	21.0		18.4
664	Socotherm	Oil equipment, services & distribution (57)	Italy	10.20	3.0	267	3.8		10.1
665	Comptel	Software (9537)	Finland	10.15	-7.5	82	12.4		20.7
666	Axis-Shield	Biotechnology (4573)	UK	10.13	-34.0	91	11.1		2.2
667	Natuzzi	Household goods (372)	Italy	10.10	7.4	634	1.6		-7.3
668	Fiberweb	Support services (279)	UK	10.08		688	1.5		-17.6
669	Oriflame Cosmetics	Personal goods (376)	Luxembourg	10.06	-1.6	1,109	0.9		11.7
670	Paragon	Automobiles & parts (335)	Germany	10.02	-11.7	109	9.2		6.4
671	Senior	Industrial machinery (2757)	UK	9.94	-5.2	641	1.6		8.9
672	Photo-Me	General retailers (537)	UK	9.87	-23.3	298	3.3		6.0
673	Gunnebo	General retailers (537)	Sweden	9.84	-7.0	743	1.3		4.4
674	Bioxell	Biotechnology (4573)	Italy	9.83	1.4	1	983.0		-1,600.0
675	Switchcore	Computer hardware (9572)	Sweden	9.82	-3.3	6	163.7		-316.7
676	Amsterdam Molecular Therapeutics	Biotechnology (4573)	The Netherlands	9.80	115.4	0			
677	Trinity Biotech	Health care equipment & services (453)	Ireland	9.79	14.0	98	10.0		-20.4
678	Linos	Electronic equipment (2737)	Germany	9.75	-1.5	94	10.4		9.6
679	Perstorp	Chemicals (135)	Sweden	9.74	8.2	908	1.1		9.4
680	Kapsch TrafficCom	Support services (279)	Austria	9.61	-8.5	186	5.2		17.7
681	TKH	Electrical components & equipment (2733)	The Netherlands	9.58	27.6	818	1.2		7.7
682	British Nuclear Fuels	Electricity (753)	UK	9.53	-68.2	1,145	0.8		2.7
682	GERRY WEBER International	Personal goods (376)	Germany	9.53	0.4	507	1.9		10.3
684	Brit Insurance	Nonlife insurance (853)	UK	9.51	5.5	1,715	0.6		15.2
685	Pharmathen	Pharmaceuticals (4577)	Greece	9.46	-20.1	43	22.0		2.3
686	Arup	Support services (279)	UK	9.45	10.4	779	1.2		4.1
687	Phytopharm	Biotechnology (4573)	UK	9.43	6.0	4	235.8		-200.0
687	Intrum Justitia	Other financials (877)	Sweden	9.43	38.9	341	2.8		18.5
689	Prima Industrie	Industrial machinery (2757)	Italy	9.37	29.4	176	5.3		13.6
690	Xaar	Electrical components & equipment (2733)	UK	9.35	-7.6	65	14.4		13.8

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
691	Wavin	Construction & materials (235)	The Netherlands	9.34	-37.7	1,618	0.6	9.5	
692	McNeil Healthcare (now part of Cilag, Switzerland)	Pharmaceuticals (4577)	UK	9.33	5.4	207	4.5	7.2	
693	Glanbia	Food producers (357)	Ireland	9.31	11.6	2,207	0.4	4.1	
694	Netia	Fixed line telecommunications (653)	Poland	9.25	88.4	233	4.0	-32.2	
695	Txt E-Solutions	Software (9537)	Italy	9.15	14.9	53	17.3	-1.9	
696	Constantia Packaging	General industrials (272)	Austria	9.13	44.2	1,566	0.6	11.6	
697	Erg	Oil & gas producers (53)	Italy	9.10	-20.1	10,166	0.1	3.6	
698	Avanquest Software	Software (9537)	France	9.02	13.3	74	12.2	5.4	
699	Verbund	Electricity (753)	Austria	9.00	25.0	3,038	0.3	32.5	
699	Mondi	Forestry & paper (173)	UK	9.00		6,269	0.1	6.2	
699	MVV Energie	Gas, water & multiutilities (757)	Germany	9.00	230.9	2,259	0.4	8.5	
699	D'leteren	General retailers (537)	Belgium	9.00	87.5	6,016	0.1	4.9	
703	Hermle Berthold	Industrial machinery (2757)	Germany	8.90	15.0	243	3.7	22.2	
704	Oxagen	Biotechnology (4573)	UK	8.87	11.6	0			
705	SoftM Software und Beratung	Computer services (9533)	Germany	8.86	30.3	55	16.1	-7.3	
706	Zetex	Semiconductors (9576)	UK	8.85	27.3	88	10.1	8.0	
707	StatPro	Software (9537)	UK	8.80	41.3	33	26.7	24.2	
708	ClearSpeed Technology	Semiconductors (9576)	UK	8.76	5.8	2	438.0	-1,050.0	
709	Etex	Construction & materials (235)	Belgium	8.73	347.7	2,129	0.4	11.7	
710	MBDA	Aerospace & defence (271)	UK	8.71	-16.9	1,074	0.8	8.2	
710	BSS	Support services (279)	UK	8.71	52.3	1,755	0.5	4.9	
712	PSI	Software (9537)	Germany	8.70	-18.7	123	7.1	3.3	
713	Swedish Match	Tobacco (378)	Sweden	8.68	-13.6	1,328	0.7	21.8	
714	Lombard Medical Technologies	Health care equipment & services (453)	UK	8.67	33.0	1	867.0	-1,700.0	
715	Fugro	Oil equipment, services & distribution (57)	The Netherlands	8.65	25.9	1,803	0.5	17.7	
716	Epigenomics	Biotechnology (4573)	Germany	8.64	32.3	3	288.0	-466.7	
717	WaveLight	Health care equipment & services (453)	Germany	8.63	-24.3	88	9.8	-12.5	
718	Devgen	Biotechnology (4573)	Belgium	8.61	88.8	6	143.5	-283.3	
719	Zenon SA Robotics and Informatics	Industrial machinery (2757)	Greece	8.58	241.8	8	107.3	-75.0	
720	Punch International	Industrial machinery (2757)	Belgium	8.53	128.7	332	2.6	8.7	
721	Royal Ten Cate	General industrials (272)	The Netherlands	8.50	4.9	887	1.0	7.6	
722	Sword	Computer services (9533)	France	8.49	37.2	179	4.7	16.2	
723	Atria	Food producers (357)	Finland	8.43	13.3	1,272	0.7	4.7	
724	Plastic Logic	Electrical components & equipment (2733)	UK	8.42		<0.5			
725	Greencore	Food producers (357)	Ireland	8.36	19.1	1,267	0.7	6.8	
726	Oncomethylome Sciences	Biotechnology (4573)	Belgium	8.32	15.9	1	832.0	-1,300.0	

Rank	Company	ICB Sector	Country	R&D Investment	change 07/06	Net Sales	R&D/Net Sales ratio	Operating Profit
				2007		2007	2007	2007
				€m	%	€m	%	% of Net Sales
727	Amarin	Biotechnology (4573)	UK	8.28	-26.5	0		
728	KMD	Computer services (9533)	Denmark	8.23	47.2	433	1.9	6.9
728	Wienerberger	Construction & materials (235)	Austria	8.23	57.4	2,477	0.3	14.9
730	ACS	Construction & materials (235)	Spain	8.20	-64.9	21,389	0.0	11.6
730	Elexis	Electrical components & equipment (2733)	Germany	8.20	10.8	161	5.1	15.5
730	Techem	Support services (279)	Germany	8.20	15.3	559	1.5	14.1
733	Wolford	Personal goods (376)	Austria	8.14	5.4	158	5.2	7.0
734	Biotie Therapies	Biotechnology (4573)	Finland	8.12	7.1	8	101.5	-37.5
734	LastMile Communications	Telecommunications equipment (9578)	UK	8.12	277.7	<0.5		
736	Orc Software	Software (9537)	Sweden	8.11	-11.7	56	14.5	23.2
737	Newron Pharmaceuticals	Pharmaceuticals (4577)	Italy	8.09	-28.8	4	202.3	-350.0
738	Kewill Systems (now Kewill)	Software (9537)	UK	8.06	60.9	69	11.7	4.3
739	Infovista	Software (9537)	France	8.05	5.6	40	20.1	-7.5
740	Lavipharm	Pharmaceuticals (4577)	Greece	8.04	51.4	248	3.2	2.4
741	Digital Bridges	Software (9537)	UK	8.02	-15.6	24	33.4	
742	Redac	Software (9537)	UK	8.00	15.1	79	10.1	-2.5
742	Lufthansa	Travel & leisure (575)	Germany	8.00	60.0	22,420	0.0	8.6
744	CeNeS Pharmaceuticals (now part of Paion, Germany)	Biotechnology (4573)	UK	7.97	-19.6	1	797.0	-1,000.0
745	Anglo Design	Electronic equipment (2737)	UK	7.96	36.5	104	7.7	3.8
746	Skanska	Construction & materials (235)	Sweden	7.94	4.2	14,686	0.1	3.9
746	Beig Topco	Food producers (357)	UK	7.94		407	2.0	7.1
746	Pilat Media Global	Software (9537)	UK	7.94	42.0	25	31.8	8.0
749	R Stahl	Electrical components & equipment (2733)	Germany	7.92	7.2	212	3.7	12.7
750	ClinPhone	Health care equipment & services (453)	UK	7.89	115.6	64	12.3	-3.1
751	Ablynx	Biotechnology (4573)	Belgium	7.88		9	87.6	-166.7
752	CeWe Color	General retailers (537)	Germany	7.86	3.7	413	1.9	3.4
753	Amper	Telecommunications equipment (9578)	Spain	7.81	38.0	310	2.5	5.2
754	Trevi Finanziaria Industrial	Construction & materials (235)	Italy	7.77	9.1	817	1.0	12.2
754	Omega Pharma	Pharmaceuticals (4577)	Belgium	7.77	-28.2	1,004	0.8	9.6
756	Tigenix	Biotechnology (4573)	Belgium	7.72	47.3	<0.5		
757	Karolin Machine Tool (now part of Nordstjernan)	Industrial machinery (2757)	Sweden	7.70	-0.8	168	4.6	4.2
758	Global Graphics	Software (9537)	France	7.64	6.3	16	47.8	31.3
759	John Lewis	General retailers (537)	UK	7.62	3.7	7,758	0.1	6.1
760	IPTE	Industrial machinery (2757)	Belgium	7.57	26.8	255	3.0	4.7
761	Umbro (now part of Nike, USA)	Personal goods (376)	UK	7.54	40.7	204	3.7	18.6

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
762	Ebro Puleva	Food producers (357)	Spain	7.52	27.7	2,685	0.3	0.7	
763	Elisa	Fixed line telecommunications (653)	Finland	7.50	25.0	1,568	0.5	18.3	
763	Royal Cosun	Food producers (357)	The Netherlands	7.50	0.0	1,713	0.4	3.2	
763	Huntleigh Technology (now part of Getinge Extended Care)	Health care equipment & services (453)	UK	7.50	-13.0	307	2.4	12.1	
763	TUI	Travel & leisure (575)	Germany	7.50	-35.9	21,866	0.0	1.4	
767	Kingspan	Construction & materials (235)	Ireland	7.48	-3.5	1,863	0.4	12.5	
768	MTL Instruments	Electronic equipment (2737)	UK	7.47	16.0	116	6.4	10.3	
769	nCipher	Software (9537)	UK	7.44	35.0	33	22.5	9.1	
770	Larox	Industrial machinery (2757)	Finland	7.42	9.0	158	4.7	8.2	
770	Manutan International	Support services (279)	France	7.42		449	1.7	10.5	
772	DekaBank	Banks (835)	Germany	7.40	68.2	1,219	0.6	41.7	
772	Thomas Swan	Chemicals (135)	UK	7.40	2.2	39	19.0	-5.1	
772	Fiskars	Household goods (372)	Finland	7.40	21.3	658	1.1	16.3	
772	Glaston	Industrial machinery (2757)	Finland	7.40	31.4	270	2.7	5.9	
772	Wirecard	Support services (279)	Germany	7.40	179.2	134	5.5	24.6	
777	Expro	Oil equipment, services & distribution (57)	UK	7.38	125.0	706	1.0	12.5	
778	Fabasoft	Software (9537)	Austria	7.37	-0.4	22	33.5		
779	SDL	Software (9537)	UK	7.32	13.8	160	4.6	11.3	
780	Munters	Industrial machinery (2757)	Sweden	7.30	32.7	663	1.1	9.0	
781	Technotrans	Electrical components & equipment (2733)	Germany	7.28	11.5	153	4.8	9.2	
781	Cofide	General industrials (272)	Italy	7.28	12.5	4,215	0.2	8.6	
783	Mania Technologie	Electronic equipment (2737)	Germany	7.25	76.4	77	9.4	1.3	
784	Pfeiffer Vacuum Technology	Household goods (372)	Germany	7.19	-1.8	192	3.7	27.6	
785	Telegraaf Media Groep	Media (555)	The Netherlands	7.16	-48.3	739	1.0	-4.2	
786	Spyker Cars	Automobiles & parts (335)	The Netherlands	7.14	-20.2	45	15.9	-106.7	
786	Mensch und Maschine Software	Software (9537)	Germany	7.14	22.3	213	3.4	4.7	
788	SolarWorld	Electrical components & equipment (2733)	Germany	7.12	-15.8	699	1.0	23.0	
789	Gamma	Personal goods (376)	The Netherlands	7.10	-23.7	779	0.9	7.4	
790	McBride	Household goods (372)	UK	7.08	29.9	806	0.9	5.3	
791	Rosenbauer International	Commercial vehicles & trucks (2753)	Austria	7.04	-4.9	426	1.7	7.3	
791	Spirax-Sarco Engineering	Industrial machinery (2757)	UK	7.04	-11.0	568	1.2	16.7	
793	Prayon	Chemicals (135)	Belgium	7.00	6.1	604	1.2	1.8	
793	EVS Broadcast Equipment	Electronic equipment (2737)	Belgium	7.00	27.3	95	7.4	62.1	
795	Macro 4	Software (9537)	UK	6.98	5.4	41	17.0	9.8	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
796	Microgen	Computer services (9533)	UK	6.97	-16.8	49	14.2	10.2	
796	Liberata	Support services (279)	UK	6.97		281	2.5	3.6	
798	Hoeft & Wessel	Industrial machinery (2757)	Germany	6.94	27.1	100	6.9	6.0	
798	International Personal Finance	Other financials (877)	UK	6.94		558	1.2	11.5	
800	Basler	Electrical components & equipment (2733)	Germany	6.93	-6.4	52	13.3	3.8	
800	Actix International	Software (9537)	UK	6.93	-30.1	31	22.4	-9.7	
802	Clipper Windpower	Electricity (753)	UK	6.89	43.5	16	43.1	-843.8	
803	Biotage	Biotechnology (4573)	Sweden	6.88	1.3	53	13.0	7.5	
803	Vanco	Fixed line telecommunications (653)	UK	6.88	37.1	249	2.8	10.4	
805	Chloride	Electrical components & equipment (2733)	UK	6.83	7.9	364	1.9	12.6	
806	International Power	Electricity (753)	UK	6.81	66.5	3,165	0.2	22.1	
806	Alliance Boots	General retailers (537)	UK	6.81	-68.9	15,660	0.0	4.2	
806	Sioen Industries	Personal goods (376)	Belgium	6.81	5.1	380	1.8	10.3	
809	Raisio	Food producers (357)	Finland	6.80	-39.3	441	1.5	1.1	
809	SThree	Support services (279)	UK	6.80	857.7	712	1.0	9.8	
811	Affibody	Biotechnology (4573)	Sweden	6.79	16.9	2	339.5	-500.0	
811	ExonHit Therapeutics	Biotechnology (4573)	France	6.79	32.9	5	135.8	-140.0	
813	Haulotte	Commercial vehicles & trucks (2753)	France	6.77	8.5	648	1.0	17.6	
814	Apertio (now part of Nokia Siemens Networks)	Telecommunications equipment (9578)	UK	6.75	4.7	27	25.0	-18.5	
815	Urenco	Electricity (753)	UK	6.70	-46.4	1,024	0.7	34.5	
816	Leifheit	Household goods (372)	Germany	6.69	10.4	276	2.4	1.1	
817	Aga Foodservice (now Aga Rangemaster)	Household goods (372)	UK	6.67	8.8	778	0.9	5.8	
817	Foseco (now part of Cookson)	Industrial machinery (2757)	UK	6.67	-5.8	587	1.1	9.9	
819	Paion	Pharmaceuticals (4577)	Germany	6.64	-48.0	5	132.8	-260.0	
820	Net Insight	Telecommunications equipment (9578)	Sweden	6.63	-32.9	24	27.6	12.5	
821	Randox Laboratories	Biotechnology (4573)	UK	6.59	-20.5	60	11.0	6.7	
821	Silence Therapeutics	Biotechnology (4573)	UK	6.59	51.8	6	109.8	-133.3	
823	Cast	Software (9537)	France	6.56	10.8	31	21.2	6.5	
824	Ordina	Computer services (9533)	The Netherlands	6.51	-11.3	665	1.0	6.9	
825	IAWS	Food producers (357)	Ireland	6.48	9.8	1,908	0.3	9.7	
826	Newport Networks	Telecommunications equipment (9578)	UK	6.42	-27.0	<0.5			
827	Anoto	Computer hardware (9572)	Sweden	6.41	-53.0	18	35.6	-5.6	
828	FKI (now part of Melrose)	Industrial machinery (2757)	UK	6.40	-37.3	1,816	0.4	6.6	
829	Jetter	Industrial machinery (2757)	Germany	6.38	0.8	41	15.6	9.8	
830	Lafuma	Personal goods (376)	France	6.37	15.6	251	2.5	3.2	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
831	Innovia Films	Chemicals (135)	UK	6.36	43.2	357	1.8		8.7
831	Graphisoft	Software (9537)	Hungary	6.36	26.2	33	19.3		
833	Alphameric	Software (9537)	UK	6.34	7.6	62	10.2		-11.3
834	Tilgin	Electronic equipment (2737)	Sweden	6.33	24.4	41	15.4		-12.2
835	GW Sohlberg	Electronic equipment (2737)	Finland	6.30	14.5	10	63.0		-280.0
835	SHL	Support services (279)	UK	6.30	18.6	113	5.6		1.8
837	Stratec Biomedical System	Health care equipment & services (453)	Germany	6.29	-18.7	68	9.3		20.6
838	BWT	Gas, water & multiutilities (757)	Austria	6.28	6.6	397	1.6		8.8
839	Nationwide	Other financials (877)	UK	6.26	-70.5	3,100	0.2		30.1
840	4SC	Biotechnology (4573)	Germany	6.24	9.3	1	624.0		-900.0
840	Genesys (now part of West, USA)	Fixed line telecommunications (653)	France	6.24	-12.0	148	4.2		12.2
842	Torotrak	Automobiles & parts (335)	UK	6.22	2.6	5	124.4		-80.0
842	GFI Informatique	Computer services (9533)	France	6.22	2.0	688	0.9		3.9
842	Norbrook Laboratories	Pharmaceuticals (4577)	UK	6.22	10.9	127	4.9		5.5
845	Kaessbohrer Gelaendefahrzeug	Industrial machinery (2757)	Germany	6.20	-7.5	183	3.4		10.4
845	Randstad	Support services (279)	The Netherlands	6.20	31.9	2,030	0.3		25.9
847	Amtel-Vredestein	Automobiles & parts (335)	The Netherlands	6.16	349.6	559	1.1		-9.5
847	SABMiller	Beverages (353)	UK	6.16	50.2	14,644	0.0		17.2
849	Espirito Santo Financial	Banks (835)	Luxembourg	6.13	5.3	2,644	0.2		29.3
849	PZ Cussons	Personal goods (376)	UK	6.13	15.4	787	0.8		9.3
851	Sectra	Health care equipment & services (453)	Sweden	6.12	35.7	79	7.7		10.1
852	Devro	Food producers (357)	UK	6.11	-7.4	214	2.9		11.7
853	Centrotec Sustainable	Chemicals (135)	Germany	6.10	56.8	406	1.5		6.7
854	Artwork Systems (now part of Esko-Graphics, Denmark)	Software (9537)	Belgium	6.08	9.9	46	13.2		34.8
855	Christie	Support services (279)	UK	6.05	46.5	119	5.1		8.4
856	Bond International Software	Software (9537)	UK	6.03	70.3	40	15.1		17.5
857	Aerocrine	Health care equipment & services (453)	Sweden	6.01	31.2	8	75.1		-150.0
857	Forensic Science Service	Support services (279)	UK	6.01		215	2.8		-0.5
859	CEAG	Telecommunications equipment (9578)	Germany	6.00	-6.3	315	1.9		3.8
859	Sodexo Alliance (now Sodexo)	Travel & leisure (575)	France	6.00	200.0	13,385	0.0		4.8
861	G4S	Support services (279)	UK	5.99	213.6	6,502	0.1		5.1
862	Clearswift Systems	Software (9537)	UK	5.97	-6.0	28	21.3		-28.6
862	Xchanging	Support services (279)	UK	5.97	114.0	637	0.9		6.8
864	ReNeuron	Biotechnology (4573)	UK	5.94	1.5	<0.5			
864	TELES	Internet (9535)	Germany	5.94	-6.3	27	22.0		-59.3

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
866	MicroEmissive Displays	Electrical components & equipment (2733)	UK	5.92	8.6	<0.5			
866	JoWood Productions Software	Software (9537)	Austria	5.92	14.7	23	25.7		8.7
866	Update Software	Software (9537)	Austria	5.92	46.2	32	18.5		12.5
869	Games Workshop	Leisure goods (374)	UK	5.91	2.1	152	3.9		-2.0
870	Meridio	Software (9537)	UK	5.90	10.3	15	39.3		-20.0
871	Dantherm	Industrial machinery (2757)	Denmark	5.89	24.0	396	1.5		2.3
872	Vandemoortele	Food producers (357)	Belgium	5.87	6.7	972	0.6		3.9
873	Rhj International	Other financials (877)	Belgium	5.86	-83.7	4,104	0.1		-8.7
873	Systar	Software (9537)	France	5.86	8.7	18	32.6		11.1
875	XCounter	Health care equipment & services (453)	Sweden	5.85	164.7	<0.5			
876	Investment AB Kinnevik	Other financials (877)	Sweden	5.82	-25.7	812	0.7		210.7
877	Ponsse	Commercial vehicles & trucks (2753)	Finland	5.81	78.2	310	1.9		12.3
877	Efore	Electronic equipment (2737)	Finland	5.81	19.5	80	7.3		-2.5
879	Langley	Industrial machinery (2757)	UK	5.76	-1.9	494	1.2		10.7
880	Bespak (now Consort Medical)	Health care equipment & services (453)	UK	5.74	11.7	177	3.2		11.9
880	Cerep	Pharmaceuticals (4577)	France	5.74	-55.2	49	11.7		2.0
882	Premier Foods	Food producers (357)	UK	5.72	16.7	3,149	0.2		3.3
882	Phoqus Pharmaceuticals	Pharmaceuticals (4577)	UK	5.72	34.0	<0.5			
882	Camelot	Travel & leisure (575)	UK	5.72	-69.3	5,884	0.1		1.1
885	Boiron	Pharmaceuticals (4577)	France	5.71	77.9	434	1.3		10.1
886	Ercros	Chemicals (135)	Spain	5.70	-6.6	845	0.7		-4.7
887	Inmarsat	Mobile telecommunications (657)	UK	5.68	143.8	394	1.4		36.8
888	Fagerhult	Electrical components & equipment (2733)	Sweden	5.62	18.6	267	2.1		7.9
889	Kemble Water	Support services (279)	UK	5.58	13.9	2,175	0.3		37.0
890	Surrey Satellite Technology	Telecommunications equipment (9578)	UK	5.56	2.6	35	15.9		5.7
891	Marshalls	Construction & materials (235)	UK	5.55	8.0	549	1.0		11.7
892	Biolitec	Pharmaceuticals (4577)	Germany	5.54	1.5	39	14.2		20.5
893	Grifols	Pharmaceuticals (4577)	Spain	5.53	14.0	703	0.8		20.8
894	Sanochemia Pharmazeutika	Pharmaceuticals (4577)	Austria	5.52	-36.3	30	18.4		-23.3
894	Transitive	Software (9537)	UK	5.52	24.6	4	138.0		-100.0
896	PV Crystallox Solar	Electrical components & equipment (2733)	UK	5.51		359	1.5		25.1
897	PKC	Electronic equipment (2737)	Finland	5.50	12.0	289	1.9		9.7
898	IRIS	Software (9537)	Belgium	5.48	10.3	95	5.8		8.4
899	CML Microsystems	Semiconductors (9576)	UK	5.40	-16.3	23	23.5		-8.7
900	AERO Vodochody	Aerospace & defence (271)	Czech Republic	5.38	-56.0	110	4.9		-29.1
900	Fagor Electrodomesticos	Household goods (372)	Spain	5.38	13.0	1,750	0.3		1.9

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
902	Helphire	Other financials (877)	UK	5.37	90.4	395	1.4	13.9	
903	Polynt	Chemicals (135)	Italy	5.36	19.9	576	0.9	7.5	
904	Augusta Technologie	Electrical components & equipment (2733)	Germany	5.35	14.8	119	4.5	13.4	
904	Ambu	Health care equipment & services (453)	Denmark	5.35	-7.9	96	5.6	9.4	
906	Cie Automotive	Automobiles & parts (335)	Spain	5.34	-16.6	1,278	0.4	6.7	
907	Deutsche Steinzeug	Construction & materials (235)	Germany	5.33	-34.2	243	2.2	4.9	
908	Compair	Support services (279)	UK	5.31	25.8	361	1.5	5.0	
909	Balda	Chemicals (135)	Germany	5.30	120.8	309	1.7	-10.0	
909	Ensto	Electrical components & equipment (2733)	Finland	5.30	17.8	209	2.5	6.7	
911	Stonesoft	Computer services (9533)	Finland	5.29	10.2	19	27.8	-36.8	
911	Sodra	Forestry & paper (173)	Sweden	5.29	0.0	1,794	0.3	9.9	
911	Maconomy	Software (9537)	Denmark	5.29	3.1	30	17.6		
914	Hymer	Automobiles & parts (335)	Germany	5.25	-24.9	870	0.6	5.6	
914	Ceres Power	Electrical components & equipment (2733)	UK	5.25	63.6	<0.5			
914	Dansk Landbrugs Grovvarerelskab	Food producers (357)	Denmark	5.25	61.0	3,303	0.2	1.7	
917	Schuler	Industrial machinery (2757)	Germany	5.23	27.6	725	0.7	1.9	
917	Topdanmark	Nonlife insurance (853)	Denmark	5.23	34.4	1,687	0.3	13.2	
919	Trafficmaster	Telecommunications equipment (9578)	UK	5.20	24.1	66	7.9	10.6	
920	Boss Media	Travel & leisure (575)	Sweden	5.18	-26.8	33	15.7	15.2	
921	ALTEC	Computer services (9533)	Greece	5.16	-1.7	229	2.3	3.9	
922	Intelligent Energy	Electrical components & equipment (2733)	UK	5.14	-39.6	2	257.0	-500.0	
922	Vapo	Electricity (753)	Finland	5.14	14.5	661	0.8	7.6	
924	Viscom	Electronic equipment (2737)	Germany	5.10		52	9.8	7.7	
924	Manuli Rubber Industries	Industrial machinery (2757)	Italy	5.10	59.4	305	1.7	11.5	
926	Lindab International	Construction & materials (235)	Sweden	5.08	11.6	982	0.5	14.1	
927	Elementis	Chemicals (135)	UK	5.04	-15.9	489	1.0	12.5	
927	Scottish and Southern Energy	Electricity (753)	UK	5.04	-41.3	20,771	0.0	6.5	
929	Inion	Health care equipment & services (453)	Finland	5.02	-0.8	5	100.4	-240.0	
929	Marazzi	Household goods (372)	Italy	5.02	-5.3	984	0.5	11.8	
931	Havenbedrijf Rotterdam	Industrial transportation (277)	The Netherlands	5.00	0.0	474	1.1	35.9	
932	HL Display	Household goods (372)	Sweden	4.96	19.8	166	3.0	9.6	
933	Zincor Resources	Mining (177)	UK	4.95	-10.6	0			
934	Archos	Leisure goods (374)	France	4.94	38.0	124	4.0	2.4	
934	Adcapital	Other financials (877)	Germany	4.94	25.7	118	4.2	18.6	
936	Ortivus	Health care equipment & services (453)	Sweden	4.93	-47.8	17	29.0	-35.3	

Rank	Company	ICB Sector	Country	R&D Investment		Net Sales		R&D/Net Sales ratio	Operating Profit
				2007	change 07/06	2007	2007	2007	2007
				€m	%	€m	%	% of Net Sales	
936	Poste Italiane	Industrial transportation (277)	Italy	4.93	78.0	15,932	0.0	9.0	
936	Meldex International	Pharmaceuticals (4577)	UK	4.93	47.2	37	13.3		
939	Nipson Digital Printing Systems	Media (555)	UK	4.91	-7.2	37	13.3	-16.2	
940	Portrait Software	Software (9537)	UK	4.88	14.3	20	24.4		
941	Victrex	Chemicals (135)	UK	4.86	44.2	178	2.7	39.3	
942	Finuchem	Commercial vehicles & trucks (2753)	France	4.83	40.0	172	2.8	5.8	
943	ORLEN	Oil & gas producers (53)	Poland	4.82	18.4	17,741	0.0	4.0	
944	Otor	General industrials (272)	France	4.81	15.1	451	1.1	4.2	
945	OMG	Software (9537)	UK	4.79	50.6	27	17.7	7.4	
946	Quantel	Health care equipment & services (453)	France	4.78	11.9	42	11.4	-4.8	
947	Tesco Personal Finance	Other financials (877)	UK	4.77		654	0.7	43.4	
947	Usu Software	Software (9537)	Germany	4.77	66.2	31	15.4	6.5	
949	Norddeutsche Affinerie	Industrial metals (175)	Germany	4.73	-1.5	6,469	0.1	4.9	
950	Analytik Jena	Biotechnology (4573)	Germany	4.72	12.4	69	6.8	2.9	
950	Dyson	Chemicals (135)	UK	4.72	5.4	87	5.4	-16.1	
952	Pescanova	Food producers (357)	Spain	4.70	20.5	1,293	0.4	4.8	
952	Jensen	Industrial machinery (2757)	Belgium	4.70	11.9	215	2.2	8.4	
954	AudioDev	Computer hardware (9572)	Sweden	4.67	2.9	12	38.9	-66.7	
954	Pursuit Dynamics	Industrial machinery (2757)	UK	4.67	443.0	4	116.8	-250.0	
954	BRISA	Industrial transportation (277)	Portugal	4.67	-31.3	623	0.7	52.3	
957	GeneMedix	Biotechnology (4573)	UK	4.66	47.0	0			
958	Avon Rubber	General industrials (272)	UK	4.64	-63.8	100	4.6		
959	ACH	Automobiles & parts (335)	Slovenia	4.62	-3.3	734	0.6	6.7	
959	Datalex	Computer services (9533)	Ireland	4.62	-8.3	21	22.0	-9.5	
959	BioDiesel International	Industrial machinery (2757)	Austria	4.62	-24.6	77	6.0	5.2	
962	Aéroports de Paris	Industrial transportation (277)	France	4.61	-22.7	2,292	0.2	17.7	
963	Elcoteq	Electronic equipment (2737)	Finland	4.60	-32.4	4,043	0.1	-2.4	
963	Rotork	Industrial machinery (2757)	UK	4.60	22.3	321	1.4	23.4	
963	RCS MediaGroup	Media (555)	Italy	4.60	31.4	2,740	0.2	9.7	
963	Veikkaus	Travel & leisure (575)	Finland	4.60	-69.9	1,327	0.3	31.7	
967	ITM Power	Electrical components & equipment (2733)	UK	4.59	109.6	0			
967	Emak	Household goods (372)	Italy	4.59	3.6	218	2.1	11.0	
969	Glunz & Jensen	Computer hardware (9572)	Denmark	4.57	2.5	60	7.6		
970	Realtech	Computer services (9533)	Germany	4.56	-0.7	64	7.1	10.9	

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
971	Flomerics (now part of Mentor Graphics, USA)	Software (9537)	UK	4.54	12.9	22	20.6	-13.6
972	Ocean Power Delivery (now Pelamis Wave Power)	Electricity (753)	UK	4.53	99.6	<0.5		
972	Dechra Pharmaceuticals	Pharmaceuticals (4577)	UK	4.53	141.0	346	1.3	5.5
974	Beijer Electronics	Electronic equipment (2737)	Sweden	4.52	4.6	102	4.4	8.8
975	Deceuninck	Construction & materials (235)	Belgium	4.51	-11.7	657	0.7	2.1
976	Hochtief	Construction & materials (235)	Germany	4.50	-31.7	16,452	0.0	1.7
976	Evalis	Food producers (357)	France	4.50	25.0	759	0.6	0.7
978	TDG	Industrial transportation (277)	UK	4.49	-19.5	912	0.5	2.1
978	Kiln	Nonlife insurance (853)	UK	4.49	-12.5	437	1.0	19.9
978	Atoss Software	Software (9537)	Germany	4.49	16.9	24	18.7	16.7
981	Tamfelt	Personal goods (376)	Finland	4.48	2.3	168	2.7	15.5
982	UNIQA	Nonlife insurance (853)	Austria	4.46	619.4	4,905	0.1	6.9
983	Amino Technologies	Telecommunications equipment (9578)	UK	4.44	-5.9	44	10.1	2.3
984	ip access	Electronic equipment (2737)	UK	4.42	-27.9	18	24.6	-66.7
984	Astion Pharma	Pharmaceuticals (4577)	Denmark	4.42	127.8	0		
984	Studsvik	Support services (279)	Sweden	4.42	5.0	139	3.2	2.9
987	Osterreichische Bundesbahnen	Travel & leisure (575)	Austria	4.40	-76.5	4,874	0.1	3.6
988	Bernard Matthews	Food producers (357)	UK	4.39	45.4	575	0.8	-5.0
988	QXL ricardo (now Tradus)	General retailers (537)	UK	4.39	281.7	50	8.8	26.0
990	Lectus Therapeutics	Biotechnology (4573)	UK	4.38	184.4	0		
990	Teleste	Telecommunications equipment (9578)	Finland	4.38	-52.9	125	3.5	9.6
990	PartyGaming	Travel & leisure (575)	UK	4.38	16.5	313	1.4	-4.8
993	Isagro	Chemicals (135)	Italy	4.35	-40.1	195	2.2	4.1
993	Bulgari	General retailers (537)	Italy	4.35	-19.4	1,091	0.4	15.1
993	Raysearch Laboratories	Health care equipment & services (453)	Sweden	4.35	48.0	7	62.1	42.9
996	Posten	Industrial transportation (277)	Sweden	4.34	78.6	3,164	0.1	6.5
996	Wellstream	Oil equipment, services & distribution (57)	UK	4.34	37.3	363	1.2	17.9
998	Medivir	Pharmaceuticals (4577)	Sweden	4.30	-86.1	26	16.5	-15.4
999	Proteome Sciences	Pharmaceuticals (4577)	UK	4.28	9.5	<0.5		
1000	Innovation	Software (9537)	UK	4.27	37.7	150	2.8	8.7

Table A2.2. Ranking of the top 1000 non-EU companies by level of R&D investment.

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
		Top 1000 Companies		252,983.77	9.2	6,638,605	3.8	11.3
		<i>number of companies for calculation</i>		1000	994	997	995	994
1	Microsoft	Software (9537)	USA	5,583.89	14.6	41,325	13.5	37.6
2	General Motors	Automobiles & parts (335)	USA	5,540.11	22.7	124,719	4.4	-2.2
3	Pfizer	Pharmaceuticals (4577)	USA	5,532.59	6.4	33,116	16.7	16.2
4	Toyota Motor	Automobiles & parts (335)	Japan	5,453.73	9.6	141,280	3.9	9.8
5	Johnson & Johnson	Pharmaceuticals (4577)	USA	5,252.85	7.8	41,787	12.6	21.5
6	Ford Motor	Automobiles & parts (335)	USA	5,129.74	4.2	117,962	4.3	3.5
7	Roche	Pharmaceuticals (4577)	Switzerland	5,010.17	25.9	27,871	18.0	31.3
8	Samsung Electronics	Electronic equipment (2737)	South Korea	4,438.20	6.3	71,979	6.2	9.6
9	Novartis	Pharmaceuticals (4577)	Switzerland	4,386.95	21.1	27,222	16.1	18.9
10	Intel	Semiconductors (9576)	USA	3,936.22	-2.0	26,219	15.0	21.0
11	IBM	Computer services (9533)	USA	3,930.75	1.3	67,566	5.8	16.1
12	Matsushita Electric	Leisure goods (374)	Japan	3,539.28	2.4	55,764	6.3	4.8
13	Honda Motor	Automobiles & parts (335)	Japan	3,378.63	8.1	67,880	5.0	6.9
14	Merck	Pharmaceuticals (4577)	USA	3,339.66	2.1	16,550	20.2	12.2
15	Sony	Leisure goods (374)	Japan	3,330.20	2.3	47,483	7.0	1.0
16	Cisco Systems	Telecommunications equipment (9578)	USA	3,077.16	10.6	23,885	12.9	25.0
17	Motorola	Telecommunications equipment (9578)	USA	3,029.28	7.9	25,048	12.1	-1.6
18	Nissan Motor	Automobiles & parts (335)	Japan	2,845.93	3.9	64,093	4.4	6.5
19	Boeing	Aerospace & defence (271)	USA	2,633.26	18.2	45,406	5.8	9.5
20	Hitachi	Computer hardware (9572)	Japan	2,525.70	1.8	62,742	4.0	2.2
21	Hewlett-Packard	Computer hardware (9572)	USA	2,469.80	0.6	71,130	3.5	8.4
22	Toshiba	Computer hardware (9572)	Japan	2,412.15	5.8	43,569	5.5	2.8
23	Eli Lilly	Pharmaceuticals (4577)	USA	2,384.78	11.4	12,745	18.7	20.9
24	Canon	Electronic equipment (2737)	Japan	2,254.64	19.4	27,437	8.2	17.2
25	Bristol-Myers Squibb	Pharmaceuticals (4577)	USA	2,244.77	7.0	13,664	16.4	18.7
26	Amgen	Biotechnology (4573)	USA	2,233.83	-3.0	10,103	22.1	26.9
27	Wyeth	Pharmaceuticals (4577)	USA	2,227.53	4.8	15,321	14.5	28.4
28	General Electric	General industrials (272)	USA	2,058.05	1.3	102,622	2.0	16.5
29	NEC	Computer hardware (9572)	Japan	2,048.80	16.4	28,485	7.2	2.5
30	Schering-Plough	Pharmaceuticals (4577)	USA	2,001.28	33.7	8,680	23.1	-15.0
31	Oracle	Software (9537)	USA	1,874.75	24.9	15,341	12.2	35.0
32	Abbott Laboratories	Pharmaceuticals (4577)	USA	1,713.78	11.1	17,724	9.7	17.1
33	Denso	Automobiles & parts (335)	Japan	1,713.60	9.2	22,100	7.8	8.4
34	NTT	Fixed line telecommunications (653)	Japan	1,665.67	-11.8	65,880	2.5	11.0
35	Hyundai Motor	Automobiles & parts (335)	South Korea	1,602.76	51.3	50,857	3.2	4.2

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
36	Fujitsu	Computer services (9533)	Japan	1,555.67	5.2	31,225	5.0	4.2
37	Texas Instruments	Semiconductors (9576)	USA	1,473.94	-1.8	9,463	15.6	25.2
38	Google	Internet (9535)	USA	1,450.00	72.6	11,350	12.8	30.9
39	Procter & Gamble	Household goods (372)	USA	1,444.53	1.8	52,307	2.8	20.9
40	Sun Microsystems	Computer hardware (9572)	USA	1,383.66	-22.1	9,489	14.6	2.6
41	Delphi	Automobiles & parts (335)	USA	1,367.93	-4.8	17,893	7.6	-10.8
42	Advanced Micro Devices	Semiconductors (9576)	USA	1,263.28	53.3	4,113	30.7	-50.2
43	Qualcomm	Telecommunications equipment (9578)	USA	1,250.97	18.9	6,067	20.6	32.5
44	LG Electronics	Electronic equipment (2737)	South Korea	1,232.51	1.0	39,039	3.2	4.6
45	EMC	Computer hardware (9572)	USA	1,208.38	20.2	9,049	13.4	13.1
46	Takeda Pharmaceutical	Pharmaceuticals (4577)	Japan	1,183.47	13.9	7,991	14.8	41.8
47	Nortel Networks	Telecommunications equipment (9578)	Canada	1,178.47	-11.1	7,488	15.7	2.1
48	Sharp	Electronic equipment (2737)	Japan	1,162.35	23.0	19,149	6.1	5.1
49	United Technologies	Aerospace & defence (271)	USA	1,147.69	9.7	36,879	3.1	13.1
50	Nestle	Food producers (357)	Switzerland	1,132.77	8.1	64,977	1.7	14.2
51	FUJIFILM	Leisure goods (374)	Japan	1,083.69	-2.8	17,036	6.4	3.3
52	Daiichi Sankyo	Pharmaceuticals (4577)	Japan	1,044.62	7.5	5,691	18.4	5.1
53	Astellas Pharma	Pharmaceuticals (4577)	Japan	1,028.23	18.2	5,636	18.2	21.4
54	Honeywell	General industrials (272)	USA	997.90	3.4	23,658	4.2	10.7
55	Caterpillar	Commercial vehicles & trucks (2753)	USA	960.29	4.2	30,750	3.1	11.2
56	Broadcom	Semiconductors (9576)	USA	922.33	20.7	2,583	35.7	2.3
57	DuPont	Chemicals (135)	USA	915.15	2.8	20,094	4.6	13.5
58	Dow Chemical	Chemicals (135)	USA	892.57	12.1	36,601	2.4	8.3
59	Medtronic	Health care equipment & services (453)	USA	872.06	2.9	9,244	9.4	20.5
60	Telstra	Fixed line telecommunications (653)	Australia	841.97	124.3	14,238	5.9	24.1
61	Lockheed Martin	Aerospace & defence (271)	USA	824.86	5.9	28,632	2.9	10.7
62	Yahoo!	Internet (9535)	USA	817.50	40.3	4,767	17.1	10.0
63	Mitsubishi Electric	Electrical components & equipment (2733)	Japan	812.58	9.6	23,606	3.4	4.7
64	Electronic Arts	Leisure goods (374)	USA	783.14	10.0	2,507	31.2	-16.5
65	Applied Materials	Semiconductors (9576)	USA	781.14	-0.9	6,658	11.7	24.1
66	Sanyo Electric	Electronic equipment (2737)	Japan	779.24	0.4	13,564	5.7	-0.9
67	Freescall Semiconductor	Semiconductors (9576)	USA	779.04	-5.5	3,914	19.9	-29.9
68	Boston Scientific	Health care equipment & services (453)	USA	746.21	8.2	5,716	13.1	0.0
69	Ricoh	Electronic office equipment (9574)	Japan	703.99	4.2	12,676	5.6	8.7
70	AT&T	Fixed line telecommunications (653)	USA	673.71	341.7	81,343	0.8	18.0

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
71	Marvell Technology	Semiconductors (9576)	Bermuda	663.99	47.5	1,980	33.5	-3.6
72	Eisai	Pharmaceuticals (4577)	Japan	663.03	16.1	4,127	16.1	15.5
73	Mazda Motor	Automobiles & parts (335)	Japan	658.48	12.3	19,882	3.3	4.8
74	Mitsubishi Heavy	General industrials (272)	Japan	651.17	5.5	18,787	3.5	2.9
75	Amazon.com	General retailers (537)	USA	647.71	20.6	10,147	6.4	4.4
76	Aisin Seiki	Automobiles & parts (335)	Japan	635.20	9.0	14,563	4.4	5.8
77	Biogen Idec	Biotechnology (4573)	USA	632.78	28.8	2,169	29.2	26.1
78	Symantec	Software (9537)	USA	612.31	3.3	4,018	15.2	12.9
79	Petroleo Brasileiro	Oil & gas producers (53)	Brazil	602.57	21.2	60,008	1.0	22.7
80	Sumitomo Chemical	Chemicals (135)	Japan	598.25	6.4	10,959	5.5	8.2
81	ABB	Electrical components & equipment (2733)	Switzerland	595.73	12.8	20,728	2.9	13.4
82	Apple	Computer hardware (9572)	USA	586.16	20.4	16,419	3.6	18.2
83	Syngenta	Chemicals (135)	Switzerland	567.69	4.3	6,320	9.0	14.5
84	Suzuki Motor	Automobiles & parts (335)	Japan	564.12	2.5	19,369	2.9	4.1
85	Deere	Commercial vehicles & trucks (2753)	USA	558.66	12.5	14,698	3.8	8.2
86	Mitsubishi Chemical	Chemicals (135)	Japan	558.22	1.8	16,058	3.5	5.2
87	Exxon Mobil	Oil & gas producers (53)	USA	556.75	11.1	245,270	0.2	19.8
88	Micron Technology	Semiconductors (9576)	USA	550.59	22.7	3,890	14.2	-4.8
89	3M	General industrials (272)	USA	538.96	-7.1	16,731	3.2	21.8
90	Monsanto	Chemicals (135)	USA	533.49	7.6	5,887	9.1	15.9
91	Bridgestone	Automobiles & parts (335)	Japan	531.11	0.1	20,756	2.6	7.1
92	Yamaha Motor	Automobiles & parts (335)	Japan	523.77	11.0	10,755	4.9	6.6
93	Xerox	Electronic office equipment (9574)	USA	522.55	0.4	11,567	4.5	10.3
94	Baxter International	Health care equipment & services (453)	USA	519.81	23.8	7,703	6.7	18.8
95	Seiko Epson	Electronic office equipment (9574)	Japan	518.51	-8.9	8,670	6.0	1.1
96	Vale Do Rio Doce	Mining (177)	Brazil	501.35	52.4	22,052	2.3	40.9
97	eBay	General retailers (537)	USA	499.52	27.2	5,248	9.5	8.0
98	Schlumberger	Oil equipment, services & distribution (57)	USA	498.26	17.6	15,920	3.1	28.8
99	PetroChina	Oil & gas producers (53)	China	497.70	24.8	78,194	0.6	23.4
100	Allergan	Pharmaceuticals (4577)	USA	491.16	-32.0	2,708	18.1	18.1
101	Genzyme	Biotechnology (4573)	USA	484.43	12.0	2,608	18.6	17.4
102	Nvidia	Semiconductors (9576)	USA	473.06	25.0	2,803	16.9	20.4
103	Agilent Technologies	Electronic equipment (2737)	USA	468.52	4.6	3,707	12.6	10.5
104	Forest Laboratories	Pharmaceuticals (4577)	USA	458.92	-28.7	2,395	19.2	31.5
105	LSI	Semiconductors (9576)	USA	448.15	58.5	1,781	25.2	-100.5
106	Konica Minolta	Leisure goods (374)	Japan	441.68	7.4	6,292	7.0	9.4
107	Korea Electric Power	Electricity (753)	South Korea	440.43	8.8	21,290	2.1	10.5
108	Gazprom	Oil & gas producers (53)	Russia	431.64	18.0	66,629	0.6	34.4
109	Altria	Tobacco (378)	USA	431.58	-37.2	31,861	1.4	30.7
110	Hynix Semiconductor	Semiconductors (9576)	South Korea	431.21	27.8	6,316	6.8	6.4
111	CA	Software (9537)	USA	429.53	-0.2	2,925	14.7	19.3

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
112	Juniper Networks	Telecommunications equipment (9578)	USA	426.08	29.7	1,940	22.0	14.3
113	Adobe Systems	Software (9537)	USA	419.44	13.6	2,160	19.4	27.4
114	Sumitomo Electric	Electrical components & equipment (2733)	Japan	418.61	6.1	14,598	2.9	6.1
115	Dell	Computer hardware (9572)	USA	417.22	22.5	41,813	1.0	5.5
116	LG Display	Electrical components & equipment (2733)	South Korea	412.99	-23.4	10,487	3.9	11.4
117	Danaher	Electronic equipment (2737)	USA	411.35	34.8	7,597	5.4	15.8
118	Analog Devices	Semiconductors (9576)	USA	403.90	10.0	1,874	21.6	20.8
119	Teva Pharmaceutical Industries	Pharmaceuticals (4577)	Israel	397.38	17.4	6,435	6.2	25.4
120	Corning	Telecommunications equipment (9578)	USA	386.44	9.3	4,008	9.6	21.2
121	Gilead Sciences	Biotechnology (4573)	USA	384.56	55.1	2,893	13.3	50.9
122	Chevron	Oil & gas producers (53)	USA	384.39	20.1	146,431	0.3	14.3
123	Taiwan Semiconductor Manufacturing	Semiconductors (9576)	Taiwan	378.44	11.6	6,803	5.6	36.1
124	Kyocera	Electrical components & equipment (2733)	Japan	374.08	6.4	7,871	4.8	10.9
125	Northrop Grumman	Aerospace & defence (271)	USA	367.29	-6.4	21,909	1.7	9.3
126	Eastman Kodak	Leisure goods (374)	USA	365.92	-24.6	7,662	4.8	-3.3
127	Pioneer	Electronic equipment (2737)	Japan	362.58	-6.7	4,944	7.3	-1.0
128	Isuzu Motors	Commercial vehicles & trucks (2753)	Japan	358.16	6.2	10,181	3.5	7.0
129	Intuit	Software (9537)	USA	356.24	19.3	1,864	19.1	23.3
130	Cadence Design Systems	Software (9537)	USA	354.38	7.0	1,105	32.1	19.5
131	Visteon	Automobiles & parts (335)	USA	348.82	-14.1	7,740	4.5	-1.3
132	Tokyo Electron	Semiconductors (9576)	Japan	348.74	15.8	5,216	6.7	16.9
133	Raytheon	Aerospace & defence (271)	USA	343.35	8.2	15,339	2.2	9.8
134	Avaya	Telecommunications equipment (9578)	USA	341.30	10.2	3,521	9.7	4.9
135	Olympus	Leisure goods (374)	Japan	339.98	20.9	6,501	5.2	8.4
136	Johnson Controls	Automobiles & parts (335)	USA	335.83	16.9	23,719	1.4	5.1
137	Automatic Data Processing	Support services (279)	USA	332.48	2.9	6,374	5.2	18.3
138	Autodesk	Software (9537)	USA	331.93	19.4	1,486	22.3	20.5
139	Liebherr	Commercial vehicles & trucks (2753)	Switzerland	330.00	20.9	7,491	4.4	11.1
140	St Jude Medical	Health care equipment & services (453)	USA	325.79	10.5	2,585	12.6	20.6
141	Hon Hai Precision Industry	Electronic equipment (2737)	Taiwan	323.50	44.0	35,905	0.9	5.4
142	Asahi Kasei	Chemicals (135)	Japan	320.97	1.9	9,942	3.2	7.6
143	China Petroleum & Chemical	Oil & gas producers (53)	China	320.16	17.8	112,822	0.3	7.2
144	Sega Sammy	Travel & leisure (575)	Japan	319.02	43.4	3,234	9.9	14.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
145	Omron	Electronic equipment (2737)	Japan	318.54	-5.9	4,510	7.1	9.6
146	Fuji Heavy Industries	Automobiles & parts (335)	Japan	310.46	10.7	9,152	3.4	3.8
147	NetApp	Computer hardware (9572)	USA	309.29	17.3	2,259	13.7	9.5
148	TDK	Electronic equipment (2737)	Japan	306.48	10.0	5,278	5.8	9.4
149	Kraft Foods	Food producers (357)	USA	305.73		25,472	1.2	11.8
150	ZTE	Telecommunications equipment (9578)	China	300.63	13.3	3,257	9.2	6.1
151	Kla-Tencor	Semiconductors (9576)	USA	299.24	14.2	1,868	16.0	21.6
152	Spansion	Semiconductors (9576)	USA	298.75	25.6	1,710	17.5	-9.6
153	KT	Fixed line telecommunications (653)	South Korea	295.86	17.0	13,635	2.2	9.9
154	General Dynamics	Aerospace & defence (271)	USA	294.11	14.1	18,668	1.6	11.3
155	Nikon	Leisure goods (374)	Japan	289.09	27.1	5,038	5.7	10.6
156	Whirlpool	Household goods (372)	USA	287.95	-1.6	13,304	2.2	5.0
157	McKesson	Food & drug retailers (533)	USA	287.27	16.7	69,561	0.4	1.5
158	Alps Electric	Electrical components & equipment (2733)	Japan	286.55	9.3	4,335	6.6	2.9
159	SanDisk	Semiconductors (9576)	USA	285.94	36.2	2,665	10.7	7.2
160	Komatsu	Commercial vehicles & trucks (2753)	Japan	283.50	-7.8	11,980	2.4	14.2
161	POSCO	Industrial metals (175)	South Korea	281.92	17.4	23,096	1.2	15.5
162	Lexmark	Computer hardware (9572)	USA	276.19	9.0	3,402	8.1	6.6
163	Kao	Personal goods (376)	Japan	271.77	10.3	7,542	3.6	9.9
164	Emerson Electric	Electrical components & equipment (2733)	USA	271.53	11.5	15,438	1.8	14.8
165	Navistar International	Commercial vehicles & trucks (2753)	USA	261.27	-15.7	8,409	3.1	3.5
166	Synopsys	Software (9537)	USA	260.95	2.0	829	31.5	11.6
167	Celgene	Biotechnology (4573)	USA	258.87	57.4	962	26.9	29.7
168	Toray Industries	Chemicals (135)	Japan	258.75	10.7	9,468	2.7	5.5
169	Givaudan	Personal goods (376)	Switzerland	256.76	57.4	2,496	10.3	7.8
170	Stryker	Health care equipment & services (453)	USA	256.69	15.6	4,104	6.3	21.9
171	Shin-Etsu Chemical	Chemicals (135)	Japan	255.53	30.4	7,988	3.2	19.0
172	Goodyear	Automobiles & parts (335)	USA	254.44	3.6	14,047	1.8	3.7
172	Baker Hughes	Oil equipment, services & distribution (57)	USA	254.44	9.8	7,133	3.6	21.7
174	Mitsubishi Motors	Automobiles & parts (335)	Japan	253.01	-31.5	13,487	1.9	1.5
175	Japan Tobacco	Tobacco (378)	Japan	252.48	10.0	29,200	0.9	6.3
176	Cephalon	Pharmaceuticals (4577)	USA	252.46	-8.5	1,212	20.8	-5.2
177	Nippon Steel	Industrial metals (175)	Japan	252.42	8.8	26,339	1.0	14.0
178	Dainippon Sumitomo Pharma	Pharmaceuticals (4577)	Japan	250.22	37.9	1,599	15.6	14.4
179	Textron	General industrials (272)	USA	249.65	4.0	9,045	2.8	13.5
180	PepsiCo	Beverages (353)	USA	248.96	5.8	26,999	0.9	19.6
181	National Semiconductor	Semiconductors (9576)	USA	248.28	-0.2	1,290	19.2	26.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
182	StatoilHydro	Oil & gas producers (53)	Norway	248.02	60.7	65,711	0.4	26.3
183	Vertex Pharmaceuticals	Biotechnology (4573)	USA	247.61	84.2	136	182.1	-211.0
184	Becton Dickinson	Health care equipment & services (453)	USA	246.26	0.0	4,372	5.6	19.8
185	Research In Motion	Telecommunications equipment (9578)	Canada	246.11	52.4	4,110	6.0	28.8
186	Xilinx	Semiconductors (9576)	USA	244.90	-7.7	1,259	19.5	22.6
187	Harman International Industries	Leisure goods (374)	USA	243.97	18.1	2,429	10.0	10.8
188	Rockwell Collins	Aerospace & defence (271)	USA	237.34	24.4	3,020	7.9	19.3
189	Murata Manufacturing	Semiconductors (9576)	Japan	236.75	11.5	3,470	6.8	20.5
190	Tellabs	Telecommunications equipment (9578)	USA	234.67	-3.9	1,309	17.9	1.1
191	JFE	Industrial metals (175)	Japan	233.56	-0.1	19,962	1.2	15.8
192	PPG Industries	Chemicals (135)	USA	231.86	1.5	8,412	2.8	11.4
193	Nintendo	Leisure goods (374)	Japan	230.97	23.3	5,912	3.9	23.7
194	Shionogi	Pharmaceuticals (4577)	Japan	229.32	16.1	1,223	18.8	15.2
195	Eaton	General industrials (272)	USA	229.13	4.4	8,914	2.6	9.1
196	Mitsui Chemicals	Chemicals (135)	Japan	226.18	-0.5	10,335	2.2	5.4
197	Cummins	Commercial vehicles & trucks (2753)	USA	225.02	2.5	8,924	2.5	9.1
198	Yokogawa Electric	Electronic equipment (2737)	Japan	221.77	17.2	2,653	8.4	5.2
199	Halliburton	Oil equipment, services & distribution (57)	USA	221.60	17.0	11,979	1.8	20.0
200	Onex	General industrials (272)	Canada	218.30	-20.5	16,263	1.3	3.4
201	Ono Pharmaceutical	Pharmaceuticals (4577)	Japan	216.64	3.9	868	25.0	39.6
202	Teijin	Chemicals (135)	Japan	214.88	12.5	6,181	3.5	6.2
203	Samsung Electro-Mechanics	Electrical components & equipment (2733)	South Korea	211.61	4.5	1,749	12.1	4.7
204	Toyota Industries	Automobiles & parts (335)	Japan	211.52	10.9	11,500	1.8	4.7
205	Accenture	Support services (279)	Bermuda	210.22	3.0	14,673	1.4	11.6
206	Western Digital	Computer hardware (9572)	USA	209.29	3.0	3,740	5.6	7.6
207	Asahi Glass	Construction & materials (235)	Japan	207.82	10.3	10,293	2.0	5.9
208	Tata Motors	Automobiles & parts (335)	India	207.54	50.1	6,187	3.4	9.2
209	Rohm	Semiconductors (9576)	Japan	207.49	0.3	2,419	8.6	17.3
210	Kawasaki Heavy Industries	General industrials (272)	Japan	207.05	25.1	8,808	2.4	4.2
211	Tokyo Electric Power	Electricity (753)	Japan	205.10	-6.8	32,345	0.6	11.2
212	Kyowa Hakko Kogyo	Biotechnology (4573)	Japan	204.13	1.4	2,169	9.4	6.1
213	SunGard Data Systems	Computer services (9533)	USA	203.14	7.6	3,352	6.1	11.5
214	United Microelectronics	Semiconductors (9576)	Taiwan	203.10	2.3	2,389	8.5	3.3
215	Rohm & Haas	Chemicals (135)	USA	202.45	1.4	6,095	3.3	11.0
216	Nidec	Computer hardware (9572)	Japan	200.54	12.1	3,855	5.2	9.9

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
217	Fuji Electric	Electrical components & equipment (2733)	Japan	199.31	12.2	5,560	3.6	4.5
218	Millennium Pharmaceuticals (now part of Takeda Pharmaceutical, Japan)	Biotechnology (4573)	USA	196.36	-9.8	361	54.4	-4.4
219	Lam Research	Semiconductors (9576)	USA	195.17	24.7	1,755	11.1	30.9
220	Ajinomoto	Food producers (357)	Japan	194.46	4.0	7,093	2.7	4.6
221	Cerner	Software (9537)	USA	193.62	-8.1	1,040	18.6	13.4
222	MediaTek	Semiconductors (9576)	Taiwan	193.04	55.0	1,701	11.3	39.4
223	BMC Software	Software (9537)	USA	192.33	6.4	1,184	16.2	20.7
224	Asustek Computer	Computer hardware (9572)	Taiwan	191.94	17.9	15,929	1.2	4.4
225	Goodrich	Aerospace & defence (271)	USA	191.51	-22.2	4,470	4.3	12.8
226	Conexant Systems	Semiconductors (9576)	USA	190.61	3.3	553	34.5	-47.0
227	Kimberly-Clark	Personal goods (376)	USA	189.32	-8.1	12,493	1.5	14.9
228	Beckman Coulter	Health care equipment & services (453)	USA	187.41	3.4	1,889	9.9	11.0
229	Atmel	Semiconductors (9576)	USA	186.07	-5.9	1,121	16.6	3.1
230	Activision (now Activision Blizzard)	Leisure goods (374)	USA	184.35	102.5	1,982	9.3	16.5
231	Altera	Semiconductors (9576)	USA	181.65	6.8	864	21.0	21.8
232	Advantest	Semiconductors (9576)	Japan	180.67	9.6	1,439	12.6	24.7
233	Sepracor	Pharmaceuticals (4577)	USA	180.40	61.3	838	21.5	1.7
234	Lenovo	Computer hardware (9572)	Hong Kong	178.76	15.0	11,482	1.6	2.6
235	Toppan Printing	Media (555)	Japan	178.36	5.6	9,538	1.9	4.3
236	Elpida Memory	Electrical components & equipment (2733)	Japan	177.81	19.0	3,000	5.9	13.0
237	EMBRAER	Aerospace & defence (271)	Brazil	177.64	130.4	3,588	5.0	7.1
238	Actelion	Biotechnology (4573)	Switzerland	176.49	37.9	796	22.2	10.8
239	Calsonic Kansei	Automobiles & parts (335)	Japan	175.88	0.5	4,290	4.1	0.0
240	Kirin	Beverages (353)	Japan	175.07	1.1	8,575	2.0	8.7
241	Paccar	Commercial vehicles & trucks (2753)	USA	174.75	69.6	10,411	1.7	11.0
242	Taisho Pharmaceutical	Pharmaceuticals (4577)	Japan	174.61	23.6	1,482	11.8	8.2
242	Tanabe Seiyaku (now Mitsubishi Tanabe Pharma)	Pharmaceuticals (4577)	Japan	174.61	-6.6	1,087	16.1	16.7
244	Brother Industries	Computer hardware (9572)	Japan	174.21	12.7	3,442	5.1	8.6
245	Applera	Biotechnology (4573)	USA	173.71	-6.4	1,459	11.9	8.1
246	AlCoA	Industrial metals (175)	USA	170.31	16.9	21,031	0.8	9.8
247	Dai Nippon Printing	Media (555)	Japan	170.11	-3.2	9,537	1.8	6.0
248	Barr Pharmaceuticals	Pharmaceuticals (4577)	USA	169.93	15.6	1,749	9.7	12.5
249	OC Oerlikon	General industrials (272)	Switzerland	169.77	73.5	3,463	4.9	8.1
250	Colgate-Palmolive	Personal goods (376)	USA	168.94	2.3	9,432	1.8	18.9
251	Daikin Industries	Construction & materials (235)	Japan	166.55	2.1	5,584	3.0	9.0

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
252	Novellus Systems	Semiconductors (9576)	USA	164.85	-1.3	1,074	15.3	17.7
253	Tatung	Electrical components & equipment (2733)	Taiwan	164.13	39.9	4,829	3.4	4.9
254	Thermo Fisher Scientific	Electronic equipment (2737)	USA	163.26	40.3	6,666	2.4	10.1
255	SK Telecom	Mobile telecommunications (657)	South Korea	162.18	3.8	8,782	1.8	16.6
256	Toyota Boshoku	Automobiles & parts (335)	Japan	161.66	6.3	6,629	2.4	4.7
257	Harris	Telecommunications equipment (9578)	USA	160.46	24.9	2,902	5.5	16.6
258	Ciba	Chemicals (135)	Switzerland	158.29	-3.0	3,941	4.0	7.3
259	Citrix Systems	Software (9537)	USA	158.27	33.0	952	16.6	14.5
260	Mentor Graphics	Software (9537)	USA	157.38	1.3	555	28.4	7.9
261	Exelixis	Pharmaceuticals (4577)	USA	154.15	21.5	78	197.6	-105.1
262	LG Chem	Chemicals (135)	South Korea	153.02	-2.6	8,369	1.8	5.8
263	Kobe Steel	Industrial metals (175)	Japan	152.41	3.2	11,696	1.3	10.0
264	Sekisui Chemical	Household goods (372)	Japan	149.71	6.0	5,670	2.6	4.3
265	Chi Mei Optoelectronic	Electrical components & equipment (2733)	Taiwan	149.28	29.8	6,378	2.3	14.8
266	Toyoda Gosei	Automobiles & parts (335)	Japan	148.91	-3.9	3,633	4.1	5.4
267	Yamaha	Leisure goods (374)	Japan	148.29	0.7	3,370	4.4	6.2
268	Brocade Communications	Computer hardware (9572)	USA	145.90	29.4	846	17.2	8.0
269	Dover	General industrials (272)	USA	145.41	37.2	5,121	2.8	13.2
270	Parker Hannifin	Industrial machinery (2757)	USA	145.14	27.7	7,331	2.0	11.4
271	BorgWarner	Automobiles & parts (335)	USA	144.18	12.3	3,645	4.0	8.6
272	IHI	Industrial machinery (2757)	Japan	143.42	8.4	7,476	1.9	-2.5
273	Zimmer	Health care equipment & services (453)	USA	143.36	11.3	2,666	5.4	28.9
274	Novell	Software (9537)	USA	142.52	15.5	660	21.6	-5.8
275	PDL Biopharma	Biotechnology (4573)	USA	142.45	-22.0	317	44.9	-5.7
276	RF Micro Devices	Semiconductors (9576)	USA	141.83	12.1	654	21.7	-4.9
277	Pitney Bowes	Electronic office equipment (9574)	USA	141.76	15.0	4,193	3.4	14.7
278	3Com	Telecommunications equipment (9578)	USA	141.34	-4.2	886	16.0	-16.6
279	Kubota	General industrials (272)	Japan	140.36	0.9	6,904	2.0	11.2
280	Hilti	Construction & materials (235)	Liechtenstein	140.34	7.4	2,819	5.0	10.5
281	General Mills	Food producers (357)	USA	140.01	7.2	9,338	1.5	16.2
282	Teradyne	Semiconductors (9576)	USA	139.76	-2.1	762	18.3	3.9
283	Human Genome Sciences	Biotechnology (4573)	USA	139.46	11.1	29	480.9	-603.4
284	Illinois Tool Works	Industrial machinery (2757)	USA	139.18	40.4	11,134	1.3	16.2
285	Palm	Computer hardware (9572)	USA	138.68	6.2	902	15.4	-12.4
286	International Game Technology	Travel & leisure (575)	USA	138.30	7.3	1,793	7.7	30.5
287	Harley-Davidson	Automobiles & parts (335)	USA	137.89	-6.6	4,202	3.3	23.2

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
288	Hospira	Pharmaceuticals (4577)	USA	137.64	24.5	2,350	5.9	8.9
289	Tektronix	Electronic equipment (2737)	USA	136.72	9.0	756	18.1	9.3
290	Nanya Technology	Semiconductors (9576)	Taiwan	136.62	2.3	1,145	11.9	-23.9
291	International Flavors & Fragrances	Personal goods (376)	USA	136.13	7.2	1,557	8.7	15.8
292	Amylin Pharmaceuticals	Biotechnology (4573)	USA	134.78	6.4	534	25.2	-31.1
293	Bausch & Lomb (now part of Warburg Pincus LLC)	Health care equipment & services (453)	USA	134.47	10.8	1,568	8.6	5.0
294	Takata	Automobiles & parts (335)	Japan	133.38	6.9	3,073	4.3	8.5
295	Mylan	Pharmaceuticals (4577)	USA	133.20	87.8	1,987	6.7	-42.4
296	Nitto Denko	Chemicals (135)	Japan	133.06	6.1	4,162	3.2	10.2
297	McAfee	Software (9537)	USA	132.31	9.7	783	16.9	12.9
298	Chunghwa Picture Tubes	Electronic equipment (2737)	Taiwan	130.71	57.0	3,361	3.9	7.0
299	OKI Electric	Telecommunications equipment (9578)	Japan	130.44	8.6	4,401	3.0	-1.6
300	Verisign	Software (9537)	USA	130.02	47.0	1,032	12.6	-14.7
301	Mattel	Leisure goods (374)	USA	129.54	9.2	4,083	3.2	12.2
302	Dana	Automobiles & parts (335)	USA	129.27	-14.5	6,303	2.1	-5.2
303	Sybase	Software (9537)	USA	129.11	0.9	701	18.4	16.4
304	Cypress Semiconductor	Semiconductors (9576)	USA	128.45	-23.1	1,092	11.8	-1.0
305	TRW Automotive	Automobiles & parts (335)	USA	127.90	11.3	10,056	1.3	4.4
306	Clariant International	Chemicals (135)	Switzerland	127.47	1.9	5,205	2.4	2.8
307	Kansai Electric Power	Electricity (753)	Japan	127.45	-0.6	15,896	0.8	11.3
308	Kudelski	Electronic equipment (2737)	Switzerland	127.21	7.8	559	22.8	8.9
309	Koito Manufacturing	Automobiles & parts (335)	Japan	126.73	1.5	2,771	4.6	5.6
310	NCR	Computer hardware (9572)	USA	126.53	-43.6	4,236	3.0	6.1
311	Linear Technology	Semiconductors (9576)	USA	125.55	14.1	741	16.9	48.4
312	Expedia	Travel & leisure (575)	USA	124.81	30.0	1,823	6.8	20.2
313	ITT	General industrials (272)	USA	124.69	13.3	6,239	2.0	11.5
314	AU Optronics	Electronic equipment (2737)	Taiwan	123.80	23.3	10,126	1.2	13.4
315	Unisys	Computer services (9533)	USA	122.43	-46.9	3,866	3.2	1.4
315	Kellogg	Food producers (357)	USA	122.43	-6.1	8,054	1.5	15.8
317	Furukawa Electric	General industrials (272)	Japan	122.30	10.9	6,763	1.8	4.7
318	Federal-Mogul	Automobiles & parts (335)	USA	121.95	10.1	4,729	2.6	27.6
319	Medarex	Biotechnology (4573)	USA	121.72	2.2	38	320.3	-355.3
320	Telenor	Mobile telecommunications (657)	Norway	117.78	-10.6	11,859	1.0	23.4
321	Weatherford International	Oil equipment, services & distribution (57)	USA	115.81	13.3	5,358	2.2	20.2
322	UTStarcom	Telecommunications equipment (9578)	USA	115.23	-8.4	1,687	6.8	-9.1

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
323	JDS Uniphase	Telecommunications equipment (9578)	USA	115.18	8.3	955	12.1	-8.6
324	Sumitomo Metal Industries	Industrial metals (175)	Japan	114.91	14.3	9,812	1.2	20.3
325	CSL	Biotechnology (4573)	Australia	114.61	18.5	1,905	6.0	24.7
326	Hasbro	Leisure goods (374)	USA	114.36	-2.4	2,625	4.4	12.2
327	Polaris Software Lab	Software (9537)	India	114.23	17.1	179	63.8	11.7
328	Micronas Semiconductor	Semiconductors (9576)	Switzerland	113.82	6.8	431	26.4	-73.3
329	Integrated Device Technology	Semiconductors (9576)	USA	113.26	-0.5	534	21.2	1.7
330	Quanta Computer	Computer hardware (9572)	Taiwan	112.42	6.7	16,394	0.7	2.6
331	Compal Electronics	Electronic equipment (2737)	Taiwan	111.94	8.8	10,507	1.1	3.4
332	Sumitomo Rubber Industries	Automobiles & parts (335)	Japan	111.57	5.4	3,473	3.2	8.0
333	Hyundai Heavy Industries	Commercial vehicles & trucks (2753)	South Korea	111.56	18.5	15,266	0.7	12.2
334	Parametric Technology	Software (9537)	USA	111.04	10.2	644	17.2	9.5
335	Casio Computer	Leisure goods (374)	Japan	110.32	-1.0	3,801	2.9	7.3
336	Namco Bandai	Leisure goods (374)	Japan	110.23	-11.0	2,811	3.9	8.1
337	Dade Behring (now part of Siemens, Germany)	Pharmaceuticals (4577)	USA	109.91	13.6	1,190	9.2	11.6
338	ConocoPhillips	Oil & gas producers (53)	USA	109.43	36.8	115,212	0.1	13.3
339	Garmin	Leisure goods (374)	Cayman Islands	109.03	40.7	2,175	5.0	28.7
340	PMC-Sierra	Semiconductors (9576)	USA	108.84	0.3	307	35.5	-5.2
341	Molex	Electronic equipment (2737)	USA	108.82	12.9	2,234	4.9	10.1
342	Delta Electronics	Electronic equipment (2737)	Taiwan	107.74	9.7	2,738	3.9	12.7
343	DST Systems	Computer services (9533)	USA	106.84	-0.9	1,575	6.8	17.7
344	Eastman Chemical	Chemicals (135)	USA	106.70	-6.6	5,042	2.1	6.1
345	Showa Denko	Chemicals (135)	Japan	106.51	-10.9	6,265	1.7	6.1
346	JSR	Chemicals (135)	Japan	106.47	9.9	2,240	4.8	14.5
347	AGCO	Commercial vehicles & trucks (2753)	USA	105.95	21.1	4,670	2.3	6.1
348	Winbond Electronic	Semiconductors (9576)	Taiwan	105.20	6.0	694	15.2	-17.1
349	East Japan Railway	Travel & leisure (575)	Japan	104.66	1.2	16,269	0.6	14.7
350	Fanuc	Electronic equipment (2737)	Japan	104.17	5.9	2,569	4.1	40.8
351	Pou Chen	Personal goods (376)	Taiwan	104.09	11.5	4,159	2.5	7.8
352	Dainippon Screen Mfg	Semiconductors (9576)	Japan	103.37	27.2	1,845	5.6	9.9
353	Kaneka	Chemicals (135)	Japan	103.29	0.0	2,897	3.6	6.2
354	Black & Decker	Household goods (372)	USA	103.21	8.2	4,489	2.3	8.8
355	Avid Technology	Computer hardware (9572)	USA	103.08	6.6	636	16.2	-1.4
356	Terumo	Health care equipment & services (453)	Japan	102.81	-6.8	1,692	6.1	20.2
357	King Pharmaceuticals	Pharmaceuticals (4577)	USA	102.20	4.1	1,462	7.0	10.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
358	Synthes	Health care equipment & services (453)	Switzerland	101.67	18.3	1,888	5.4	33.1
359	Lubrizol	Chemicals (135)	USA	101.36	9.5	3,077	3.3	10.1
360	NGK Spark Plug	Automobiles & parts (335)	Japan	99.51	10.6	2,112	4.7	15.2
361	Watson Pharmaceuticals	Pharmaceuticals (4577)	USA	99.03	10.5	1,708	5.8	10.5
362	Huntsman	Chemicals (135)	USA	98.97	25.4	7,328	1.4	2.7
363	Shiseido	Personal goods (376)	Japan	98.77	-1.9	4,253	2.3	6.8
364	Swatch	Personal goods (376)	Switzerland	98.48	10.1	3,411	2.9	21.9
365	Theravance	Biotechnology (4573)	USA	98.46	-6.5	15	656.4	-766.7
366	Rockwell Automation	Electronic equipment (2737)	USA	97.88	-10.8	3,656	2.7	15.9
367	Meiji Seika Kaisha	Food producers (357)	Japan	97.51	-3.9	2,411	4.0	3.1
368	Zymogenetics	Biotechnology (4573)	USA	97.36	10.8	26	374.5	-396.2
369	Lite-On Technology	Computer hardware (9572)	Taiwan	97.28	22.8	5,515	1.8	4.3
370	SMC	Industrial machinery (2757)	Japan	97.09	3.8	2,080	4.7	26.7
371	SEI Investments	Other financials (877)	USA	97.05	2.0	936	10.4	29.9
372	Electronics For Imaging	Computer hardware (9572)	USA	96.55	10.4	424	22.8	-0.5
373	Bio-Rad Laboratories	Health care equipment & services (453)	USA	96.12	13.9	999	9.6	9.1
374	Alpharma	Pharmaceuticals (4577)	USA	95.93	215.7	494	19.4	-0.4
375	Air Products and Chemicals	Chemicals (135)	USA	95.89	-7.4	6,925	1.4	15.0
376	Polycom	Telecommunications equipment (9578)	USA	95.08	21.6	636	14.9	8.2
377	Bombardier	Aerospace & defence (271)	Canada	95.07	-19.7	11,973	0.8	4.2
378	Dainippon Ink & Chemicals (now DIC)	Chemicals (135)	Japan	94.95	4.2	6,218	1.5	4.1
379	Prithvi Information Solutions	Computer services (9533)	India	94.94	66.3	134	70.9	12.7
380	Endo Pharmaceuticals	Pharmaceuticals (4577)	USA	94.56	66.9	743	12.7	29.2
381	JS	Construction & materials (235)	Japan	94.51	-4.6	6,882	1.4	5.3
382	KDDI	Mobile telecommunications (657)	Japan	94.20	0.3	20,420	0.5	9.4
383	Cognos (now part of IBM, USA)	Software (9537)	Canada	94.03	19.8	679	13.8	12.1
384	Wistron	Computer hardware (9572)	Taiwan	92.94	47.3	6,047	1.5	3.0
385	CR Bard	Health care equipment & services (453)	USA	92.88	-6.8	1,506	6.2	25.3
386	National Instruments	Electronic equipment (2737)	USA	92.21	11.9	506	18.2	13.8
387	Qlogic	Semiconductors (9576)	USA	92.11	-0.5	409	22.5	22.2
388	Lear	Automobiles & parts (335)	USA	92.06	-20.7	10,940	0.8	3.5
389	Brunswick	Leisure goods (374)	USA	91.99	1.7	3,947	2.3	2.3
390	Intersil	Semiconductors (9576)	USA	91.91	6.3	518	17.7	20.1
391	Hoya	Electronic equipment (2737)	Japan	91.35	5.6	2,388	3.8	26.8

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
392	ON Semiconductor	Semiconductors (9576)	USA	90.97	31.4	1,071	8.5	17.7
393	Sunplus Technology	Semiconductors (9576)	Taiwan	89.95	15.4	424	21.2	7.8
394	Trimble Navigation	Electronic equipment (2737)	USA	89.92	26.6	836	10.8	15.4
395	Yokohama Rubber	Automobiles & parts (335)	Japan	89.69	0.6	3,045	2.9	5.6
396	Hitachi Kokusai Electric	Electronic equipment (2737)	Japan	88.27	12.5	1,188	7.4	7.9
397	Thq	Leisure goods (374)	USA	88.14	32.7	705	12.5	-8.5
398	Ingersoll-Rand	Industrial machinery (2757)	Bermuda	87.96	-26.7	8,017	1.1	8.2
399	BE Aerospace	Aerospace & defence (271)	USA	87.48	44.4	1,147	7.6	14.7
400	Inventec	Computer hardware (9572)	Taiwan	87.44	20.6	5,531	1.6	1.8
401	Qisda	Computer hardware (9572)	Taiwan	87.36	-72.4	3,531	2.5	-0.1
402	Chubu Electric Power	Electricity (753)	Japan	87.31	-14.3	13,554	0.6	10.4
403	NTN	Industrial machinery (2757)	Japan	87.07	-3.7	2,962	2.9	10.0
403	USEC	Industrial metals (175)	USA	87.07	20.7	1,319	6.6	6.0
403	Ciena	Telecommunications equipment (9578)	USA	87.07	14.6	533	16.3	4.7
406	Georg Fischer	Industrial machinery (2757)	Switzerland	87.00	9.9	2,717	3.2	7.4
407	Elbit Systems	Aerospace & defence (271)	Israel	86.86	37.7	1,355	6.4	6.2
408	Skyworks Solutions	Semiconductors (9576)	USA	86.23	-23.2	507	17.0	9.3
409	Anritsu	Electronic equipment (2737)	Japan	86.15	12.5	609	14.1	4.1
410	Funai Electric	Electronic equipment (2737)	Japan	85.93	-0.5	2,429	3.5	4.9
411	Rieter	Industrial machinery (2757)	Switzerland	85.25	-2.5	2,374	3.6	7.1
412	Logitech International	Computer hardware (9572)	Switzerland	85.18	15.0	1,621	5.3	12.2
413	ArvinMeritor	Automobiles & parts (335)	USA	84.81	-29.9	6,004	1.4	-1.5
414	OSI Pharmaceuticals	Biotechnology (4573)	USA	84.49	-30.1	259	32.6	15.1
415	Citizen Watch (now Citizen)	Electronic equipment (2737)	Japan	84.38	24.5	2,058	4.1	4.6
416	Quest Software	Software (9537)	USA	83.85	10.8	432	19.4	10.9
417	Edwards Lifesciences	Health care equipment & services (453)	USA	83.65	7.1	746	11.2	13.3
417	Santen Pharmaceutical	Pharmaceuticals (4577)	Japan	83.65	-2.2	615	13.6	20.3
419	Nippon Sheet Glass	Construction & materials (235)	Japan	83.63	79.2	4,173	2.0	2.3
420	Tyco International	General industrials (272)	Bermuda	82.76	8.0	25,818	0.3	3.9
421	Microchip Technology	Semiconductors (9576)	USA	82.67	6.3	708	11.7	29.4
422	ImClone Systems	Biotechnology (4573)	USA	82.00	174.7	404	20.3	9.4
423	Mindtree Consulting (now Mindtree)	Software (9537)	India	81.99	128.8	128	64.1	12.5

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
424	Emulex	Computer hardware (9572)	USA	80.59	31.4	322	25.0	8.7
425	Varian Medical Systems	Health care equipment & services (453)	USA	80.31	16.9	1,215	6.6	18.8
426	UBE Industries	Chemicals (135)	Japan	79.71	4.3	4,014	2.0	6.6
427	Trane (now part of Ingersoll-Rand, Bermuda)	Construction & materials (235)	USA	79.34	-7.9	6,004	1.3	9.2
428	Invitrogen	Biotechnology (4573)	USA	79.23	7.7	897	8.8	14.3
429	Sanken Electric	Semiconductors (9576)	Japan	78.29	13.7	1,248	6.3	6.8
430	High Tech Computer	Electronic equipment (2737)	Taiwan	78.14	24.6	2,493	3.1	26.0
431	Sumitomo Bakelite	Chemicals (135)	Japan	78.07	11.8	1,564	5.0	5.8
432	Tosoh	Chemicals (135)	Japan	77.76	14.4	4,784	1.6	7.6
432	Compuware	Software (9537)	USA	77.76	-16.1	841	9.2	13.1
434	Zoran	Semiconductors (9576)	USA	77.38	14.2	347	22.3	
435	Nippon Oil	Oil & gas producers (53)	Japan	77.34	25.0	40,556	0.2	2.6
436	Campbell Soup	Food producers (357)	USA	76.60	13.1	5,392	1.4	16.1
437	PerkinElmer	Electronic equipment (2737)	USA	76.34	11.9	1,222	6.2	9.0
438	International Rectifier	Semiconductors (9576)	USA	76.21	6.2	801	9.5	11.9
439	Lonza	Chemicals (135)	Switzerland	76.12	16.7	1,734	4.4	14.5
440	Newell Rubbermaid	Household goods (372)	USA	76.06	9.0	4,385	1.7	11.5
441	Andrew	Telecommunications equipment (9578)	USA	76.04	-1.6	1,501	5.1	-5.5
442	Smith International	Oil equipment, services & distribution (57)	USA	75.72	25.4	5,994	1.3	15.6
443	Endress & Hauser	Electronic equipment (2737)	Switzerland	75.55	-4.4	1,113	6.8	13.1
444	Red Hat	Software (9537)	USA	75.32	39.3	358	21.0	13.4
445	Fujikura	Electrical components & equipment (2733)	Japan	75.25	0.3	3,343	2.3	6.0
446	Ranbaxy Laboratories	Pharmaceuticals (4577)	India	75.14	9.1	1,212	6.2	10.8
447	Fairchild Semiconductor	Semiconductors (9576)	USA	75.10	2.1	1,142	6.6	6.1
448	ECI Telecom	Telecommunications equipment (9578)	Israel	74.55	14.4	449	16.6	1.1
449	Clorox	Household goods (372)	USA	73.87	9.1	3,315	2.2	17.6
450	Kuraray	Chemicals (135)	Japan	73.49	-14.7	2,359	3.1	7.2
451	Millipore	Health care equipment & services (453)	USA	73.18	23.5	1,048	7.0	14.1
452	Pliva	Pharmaceuticals (4577)	Croatia	72.86	-2.2	723	10.1	1.4
453	Fidelity National Information	Support services (279)	USA	72.72	0.7	3,254	2.2	16.0
454	Cell Genesys	Biotechnology (4573)	USA	72.59	10.2	1	7,259.0	-8,600.0
455	InterMune	Biotechnology (4573)	USA	72.46	1.5	46	157.5	-147.8
456	Cooper Industries	Electrical components & equipment (2733)	USA	72.30	26.6	4,038	1.8	14.9
457	ProMOS Technologies	Semiconductors (9576)	Taiwan	72.02	39.6	1,010	7.1	-17.1
458	Toto	Construction & materials (235)	Japan	71.95	0.3	3,136	2.3	4.0
459	Zeon	Chemicals (135)	Japan	71.91	28.4	1,724	4.2	10.2

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
460	AMIS (now part of ON Semiconductor)	Semiconductors (9576)	USA	71.89	0.5	421	17.1	6.7
461	Regeneron Pharmaceuticals	Biotechnology (4573)	USA	71.82	22.2	35	205.2	-222.9
462	Incyte	Biotechnology (4573)	USA	71.74	19.7	24	298.9	-241.7
462	Daicel Chemical Industries	Chemicals (135)	Japan	71.74	4.4	2,335	3.1	8.3
464	Valeant Pharmaceuticals	Pharmaceuticals (4577)	USA	71.48	-4.7	619	11.5	5.0
465	Midway Games	Software (9537)	USA	71.26	-2.0	108	66.0	-50.0
466	Varian Semiconductor Equipment	Semiconductors (9576)	USA	71.15	14.8	721	9.9	24.4
467	Mitsubishi Gas Chemical	Chemicals (135)	Japan	70.34	7.4	2,955	2.4	11.1
468	Cardinal Health	Food & drug retailers (533)	USA	70.31	4.5	60,438	0.1	1.7
469	Realnetworks	Software (9537)	USA	70.26	32.7	388	18.1	4.9
470	Moog	Aerospace & defence (271)	USA	70.18	48.9	1,066	6.6	11.2
471	Pharmion (now part of Celgene)	Pharmaceuticals (4577)	USA	70.02	45.9	183	38.3	-25.7
472	Basilea Pharmaceutica	Biotechnology (4573)	Switzerland	69.90	39.7	5	1,398.0	-1,640.0
473	Hankook Tire	Automobiles & parts (335)	South Korea	69.84	27.4	2,620	2.7	7.0
474	Oji Paper	Forestry & paper (173)	Japan	69.80	-7.3	7,749	0.9	3.0
475	Ebara	Industrial machinery (2757)	Japan	69.53	4.4	3,294	2.1	0.7
476	Hydro-Quebec	Electricity (753)	Canada	69.30	2.0	8,547	0.8	50.4
477	Advanced Semiconductor Engineering	Semiconductors (9576)	Taiwan	69.25	24.8	2,133	3.2	17.8
478	Sasol	Oil & gas producers (53)	South Africa	69.05	236.5	9,820	0.7	24.6
479	Atheros Communications	Semiconductors (9576)	USA	69.04	42.0	285	24.2	7.7
480	Doosan Infracore	Industrial machinery (2757)	South Korea	68.55	14.8	3,127	2.2	7.4
481	MGI PHARMA (now part of Eisai, Japan)	Pharmaceuticals (4577)	USA	68.48	41.2	234	29.3	-12.0
482	Macronix International	Semiconductors (9576)	Taiwan	68.33	8.4	535	12.8	16.3
483	Nippon Shokubai	Chemicals (135)	Japan	68.10	9.9	1,632	4.2	8.5
484	Mitsubishi Materials	Industrial metals (175)	Japan	68.03	2.3	8,890	0.8	6.9
485	Crane	Industrial machinery (2757)	USA	67.30	61.6	1,791	3.8	-3.9
486	Praxair	Chemicals (135)	USA	67.03	12.6	6,431	1.0	18.9
487	Nippon Kayaku	Chemicals (135)	Japan	66.72	4.6	907	7.4	9.3
487	Applied Micro Circuits	Semiconductors (9576)	USA	66.72	1.2	168	39.7	-51.2
489	Semiconductor Manufacturing	Semiconductors (9576)	China	66.37	3.0	1,060	6.3	-7.5
490	Sumco	Semiconductors (9576)	Japan	66.30	56.6	2,908	2.3	28.4
491	Tokuyama	Chemicals (135)	Japan	65.86	14.5	1,792	3.7	10.2
492	Schindler	Industrial machinery (2757)	Switzerland	65.85	-1.8	8,358	0.8	3.9

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
493	Avery Dennison	Chemicals (135)	USA	65.32	8.6	4,314	1.5	7.7
494	Orkla	General industrials (272)	Norway	65.25	-4.4	7,870	0.8	11.5
495	Techtronic Industries	Electrical components & equipment (2733)	Hong Kong	64.93	19.2	2,173	3.0	1.5
495	Itron	Electronic equipment (2737)	USA	64.93	61.5	1,001	6.5	3.2
497	NGK Insulators	General industrials (272)	Japan	64.73	10.3	1,960	3.3	15.8
498	FMC	Chemicals (135)	USA	64.70	-2.4	1,801	3.6	8.6
499	Biomet	Health care equipment & services (453)	USA	64.58	11.2	1,441	4.5	23.4
500	Kissei Pharmaceutical	Pharmaceuticals (4577)	Japan	64.12	-1.0	393	16.3	2.8
501	Realtek Semiconductor	Semiconductors (9576)	Taiwan	64.10	31.0	333	19.2	9.0
502	Norsk Hydro	Industrial metals (175)	Norway	63.86	-30.3	20,979	0.3	25.2
503	Toyobo	Chemicals (135)	Japan	63.83	3.4	2,612	2.4	4.3
504	Modine Manufacturing	Automobiles & parts (335)	USA	63.74	13.0	1,284	5.0	-0.6
505	Tibco Software	Software (9537)	USA	63.56	8.2	395	16.1	10.9
506	L-3 Communications	Aerospace & defence (271)	USA	63.47	7.5	9,548	0.7	10.3
507	Mettler-Toledo International	Industrial machinery (2757)	Switzerland	63.18	11.6	1,227	5.1	14.7
508	Tekelec	Telecommunications equipment (9578)	USA	63.08	-37.9	314	20.1	-4.1
509	Tokyo Gas	Gas, water & multiutilities (757)	Japan	62.91	9.3	8,430	0.7	11.4
510	Aristocrat Leisure	Travel & leisure (575)	Australia	62.55	9.4	674	9.3	28.8
511	Sealed Air	General industrials (272)	USA	62.10	16.1	3,181	2.0	12.6
512	NSK	Support services (279)	Japan	61.84	3.8	4,391	1.4	8.1
513	Valspar	Chemicals (135)	USA	61.78	9.3	2,222	2.8	9.9
514	Nippon Mining	Oil & gas producers (53)	Japan	61.51	4.1	23,280	0.3	5.6
515	Quantum	Computer hardware (9572)	USA	61.26	-22.3	667	9.2	-0.9
516	Silicon Laboratories	Semiconductors (9576)	USA	61.09	-26.6	262	23.3	6.5
517	NCsoft	Software (9537)	South Korea	60.90	38.4	241	25.3	14.5
518	Myriad Genetics	Biotechnology (4573)	USA	60.78	26.8	107	56.8	-29.9
519	Abraxis Bioscience	Pharmaceuticals (4577)	USA	60.68	-2.2	228	26.6	-16.2
520	Osaka Gas	Gas, water & multiutilities (757)	Japan	60.65	-12.5	7,190	0.8	7.8
521	Nissan Chemical Industries	Chemicals (135)	Japan	60.61	7.8	1,067	5.7	12.3
522	Convergys	Support services (279)	USA	60.26	3.8	1,945	3.1	9.3
523	Avocent	Computer hardware (9572)	USA	60.11	37.6	411	14.6	8.3
524	Dr Reddy's Laboratories	Pharmaceuticals (4577)	India	59.82	40.9	853	7.0	10.0
525	Interdigital	Semiconductors (9576)	USA	59.60	33.2	160	37.3	10.0
526	Hyundai Mobis	Automobiles & parts (335)	South Korea	59.46	20.0	7,841	0.8	9.5
527	Hamamatsu Photonics	Electronic equipment (2737)	Japan	59.39	5.7	590	10.1	20.5
528	Toyo Tire	Automobiles & parts (335)	Japan	58.82	-4.4	1,962	3.0	1.9
529	Idenix Pharmaceuticals	Biotechnology (4573)	USA	58.71	-10.4	46	127.6	-137.0

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
529	Powerchip Semiconductor	Semiconductors (9576)	Taiwan	58.71	9.2	1,635	3.6	-18.6
531	Lawson Software	Software (9537)	USA	58.36	40.6	513	11.4	-2.3
532	Cubist Pharmaceuticals	Biotechnology (4573)	USA	58.26	48.4	202	28.8	13.9
533	Kyushu Electric Power	Electricity (753)	Japan	58.19	-2.9	8,622	0.7	10.7
534	Powerwave Technologies	Electrical components & equipment (2733)	USA	58.13	19.4	534	10.9	-37.8
535	Horiba	Electronic equipment (2737)	Japan	58.00	15.8	883	6.6	10.3
536	Glory	Industrial machinery (2757)	Japan	57.12	-1.5	1,007	5.7	5.9
537	United Therapeutics	Biotechnology (4573)	USA	57.01	44.8	144	39.6	2.8
538	SIG (now part of Rank, New Zealand)	General industrials (272)	Switzerland	57.00	11.8	1,349	4.2	7.1
539	Lattice Semiconductor	Semiconductors (9576)	USA	56.75	1.2	156	36.4	-108.3
540	Ecolab	Chemicals (135)	USA	56.50	12.7	3,741	1.5	12.2
541	Reliance Industries	Oil & gas producers (53)	India	56.35	593.1	19,742	0.3	13.6
542	Kongsberg Gruppen	Aerospace & defence (271)	Norway	56.18	32.3	1,046	5.4	13.2
543	Neurocrine Biosciences	Biotechnology (4573)	USA	55.98	-10.0	1	5,598.0	-14,500.0
543	Cymer	Semiconductors (9576)	USA	55.98	10.8	357	15.7	21.8
545	Advanced Medical Optics	Health care equipment & services (453)	USA	55.97	23.8	746	7.5	-9.5
546	Kajima	Construction & materials (235)	Japan	55.86	-4.1	11,580	0.5	2.4
547	Taisei	Construction & materials (235)	Japan	55.82	-2.9	11,469	0.5	1.2
548	Wind River Systems	Software (9537)	USA	55.70	10.9	225	24.8	-2.7
549	SK Energy	Oil & gas producers (53)	South Korea	55.62	-2.9	29,946	0.2	2.9
550	Check Point Software Technologies	Internet (9535)	Israel	55.39	30.2	500	11.1	38.2
551	Tohoku Electric Power	Electricity (753)	Japan	55.32	-4.4	10,581	0.5	8.1
552	Sysmex	Health care equipment & services (453)	Japan	55.26	10.3	619	8.9	13.1
553	Fortune Brands	Construction & materials (235)	USA	55.20	11.0	6,020	0.9	16.5
554	Waters	Health care equipment & services (453)	USA	55.16	4.3	1,008	5.5	23.7
555	Minebea	Industrial machinery (2757)	Japan	55.10	-0.5	2,027	2.7	8.0
556	Gen-Probe	Biotechnology (4573)	USA	55.08	17.4	276	20.0	24.6
557	American Axle & Manufacturing	Automobiles & parts (335)	USA	54.99	-3.4	2,222	2.5	2.2
558	Progress Software	Software (9537)	USA	54.95	4.0	338	16.3	11.5
559	Bobst	Industrial machinery (2757)	Switzerland	54.92	-0.7	1,053	5.2	11.1
560	Nuance Communications	Software (9537)	USA	54.73	34.7	412	13.3	6.6
561	Chunghwa Telecom	Fixed line telecommunications (653)	Taiwan	54.53	-8.4	4,237	1.3	31.3

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
562	WR Grace	Chemicals (135)	USA	54.44	24.7	2,131	2.6	4.6
563	OmniVision Technologies	Semiconductors (9576)	USA	54.29	17.5	547	9.9	8.0
564	Sonus Networks	Telecommunications equipment (9578)	USA	54.12	42.7	219	24.7	-16.0
565	Open Text	Software (9537)	Canada	54.08	33.6	407	13.3	8.6
566	DISH Network	Media (555)	USA	54.03	39.3	7,585	0.7	13.7
567	MiTAC International	Electronic equipment (2737)	Taiwan	53.80	11.6	1,893	2.8	7.0
568	CV Therapeutics	Biotechnology (4573)	USA	53.74	-33.6	57	94.3	-217.5
569	Yamatake	Electronic equipment (2737)	Japan	53.73	5.0	1,436	3.7	7.5
570	Silicon Image	Semiconductors (9576)	USA	53.35	22.6	219	24.4	8.7
571	Ibiden	Electrical components & equipment (2733)	Japan	53.28	28.0	2,441	2.2	17.4
572	Eclipsys	Software (9537)	USA	53.14	7.8	327	16.3	3.7
573	NHK Spring	Industrial machinery (2757)	Japan	52.84	236.3	2,621	2.0	6.3
573	Medicines	Pharmaceuticals (4577)	USA	52.84	21.6	176	30.0	-10.8
575	Affymetrix	Biotechnology (4573)	USA	52.83	-10.5	254	20.8	2.0
576	Asahi Breweries	Beverages (353)	Japan	52.82	1.7	8,964	0.6	6.2
577	Credence Systems	Semiconductors (9576)	USA	52.77	-15.6	315	16.8	3.8
578	Shimizu	Construction & materials (235)	Japan	52.75	10.5	10,127	0.5	2.8
579	Kyorin	Pharmaceuticals (4577)	Japan	52.71	-14.8	472	11.2	9.7
580	Foundry Networks	Telecommunications equipment (9578)	USA	52.70	9.0	415	12.7	13.7
581	Tenneco	Automobiles & parts (335)	USA	52.67	32.8	4,230	1.2	3.8
582	Shimadzu	Electronic equipment (2737)	Japan	52.66	7.1	1,607	3.3	8.9
583	Sumitomo Heavy Industries	Industrial machinery (2757)	Japan	52.65	15.6	3,675	1.4	10.4
583	Plantronics	Telecommunications equipment (9578)	USA	52.65	7.1	586	9.0	9.2
585	Magma Design Automation	Software (9537)	USA	52.61	20.9	147	35.8	-11.6
586	Newmarket	Chemicals (135)	USA	52.55	9.3	940	5.6	8.4
587	Finisar	Telecommunications equipment (9578)	USA	52.35	18.5	301	17.4	-14.3
588	JohnsonDiversey	Household goods (372)	USA	52.05	11.4	2,141	2.4	2.9
589	DRS Technologies	Aerospace & defence (271)	USA	51.91	21.0	2,254	2.3	10.9
589	Aeroflex (now part of Veritas Capital Management LLC)	Electronic equipment (2737)	USA	51.91	23.6	377	13.8	8.0
591	Oshkosh Truck (now Oshkosh)	Commercial vehicles & trucks (2753)	USA	51.85	80.2	4,314	1.2	9.4
592	Cytec Industries	Chemicals (135)	USA	51.78	2.4	2,396	2.2	9.3
593	ADTRAN	Telecommunications equipment (9578)	USA	51.55	6.6	326	15.8	22.4
594	Yaskawa Electric	Electronic equipment (2737)	Japan	51.53	4.2	2,259	2.3	7.5
595	Japan Aviation Electronics Industry	Aerospace & defence (271)	Japan	51.34	4.4	843	6.1	7.6
596	Biovail	Pharmaceuticals (4577)	Canada	51.33	24.1	731	7.0	21.9

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
597	Ruag	Aerospace & defence (271)	Switzerland	51.11	11.0	855	6.0	5.8
598	Denki Kagaku Kogyo	Chemicals (135)	Japan	51.05	-5.3	2,016	2.5	7.9
599	Coherent	Electronic equipment (2737)	USA	51.02	2.1	411	12.4	1.9
600	Estee Lauder	Personal goods (376)	USA	50.89	3.3	4,813	1.1	10.7
601	CGI	Computer services (9533)	Canada	50.68	6.1	2,572	2.0	10.6
601	Owens-Illinois	General industrials (272)	USA	50.68	130.2	5,500	0.9	11.1
603	Time Warner	Media (555)	USA	50.61	-35.1	31,883	0.2	17.2
604	Illumina	Biotechnology (4573)	USA	50.57	130.5	251	20.1	-82.1
605	Mochida Pharmaceutical	Pharmaceuticals (4577)	Japan	50.53		453	11.2	13.9
606	Inventec Appliances	Leisure goods (374)	Taiwan	50.35	29.7	1,954	2.6	3.9
607	Polaris Industries	Automobiles & parts (335)	USA	50.33	-0.4	1,217	4.1	10.0
608	Mahindra & Mahindra	Automobiles & parts (335)	India	50.26	53.8	3,058	1.6	16.2
609	Nippon Shinyaku	Pharmaceuticals (4577)	Japan	50.20	-18.6	345	14.6	9.0
610	Kpit Cummins Infosystems	Computer services (9533)	India	50.04	39.9	80	62.6	12.5
611	Fonterra Co-operative	Food producers (357)	New Zealand	50.00	-4.0	7,307	0.7	3.4
612	Celanese	Chemicals (135)	USA	49.93	4.3	4,542	1.1	12.4
613	FLIR Systems	Aerospace & defence (271)	USA	49.56	19.6	533	9.3	25.1
614	MKS Instruments	Semiconductors (9576)	USA	49.36	3.5	534	9.2	13.5
615	Axcelis Technologies	Semiconductors (9576)	USA	49.28	-0.5	277	17.8	-2.5
616	Cell Therapeutics	Biotechnology (4573)	USA	49.26	16.2	<0.5		
617	Lyondell Chemical (now part of Basell, The Netherlands)	Chemicals (135)	USA	49.25	-23.4	19,280	0.3	2.7
618	Shimano	Leisure goods (374)	Japan	49.21	14.3	1,297	3.8	13.6
619	Avon Products	Personal goods (376)	USA	49.11	9.1	6,734	0.7	8.8
620	China Telecom	Fixed line telecommunications (653)	China	49.07	79.5	16,729	0.3	19.3
621	Mitsubishi Rayon	Chemicals (135)	Japan	49.02	-27.0	2,553	1.9	14.3
622	Standard Microsystems	Semiconductors (9576)	USA	49.01	7.6	258	19.0	10.1
623	Openwave Systems	Software (9537)	USA	48.96	-18.7	220	22.3	-66.4
624	Netflix	Travel & leisure (575)	USA	48.83	142.3	824	5.9	7.0
625	Arris	Telecommunications equipment (9578)	USA	48.72	7.9	679	7.2	11.8
626	Kronos (now part of Hellman & Friedman LLC)	Software (9537)	USA	48.66	38.6	395	12.3	9.9
627	Diebold	Computer hardware (9572)	USA	48.56	17.5	1,988	2.4	4.9
627	Weyerhaeuser	Forestry & paper (173)	USA	48.56	2.9	11,539	0.4	-1.1
627	Toyama Chemical	Pharmaceuticals (4577)	Japan	48.56	25.6	102	47.6	-39.2
630	Energizer	Electrical components & equipment (2733)	USA	48.36	-4.7	2,302	2.1	15.2
631	Sun Pharmaceutical Industries	Pharmaceuticals (4577)	India	48.35	38.3	370	13.1	30.5
632	Trizetto	Software (9537)	USA	48.30	37.4	309	15.6	11.0

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
633	Fair Isaac	Software (9537)	USA	48.29	-16.9	562	8.6	17.8
634	Sauer-Danfoss	Commercial vehicles & trucks (2753)	USA	48.26	14.0	1,349	3.6	6.1
635	Esterline Technologies	Aerospace & defence (271)	USA	48.24	34.0	866	5.6	12.1
636	SPX	Electrical components & equipment (2733)	USA	48.08	12.3	3,501	1.4	9.0
637	Hexion Specialty Chemicals	Chemicals (135)	USA	47.88	1.5	3,974	1.2	5.0
638	Informatica	Software (9537)	USA	47.83	27.1	268	17.8	12.3
639	Akamai Technologies	Internet (9535)	USA	47.63	39.3	435	10.9	22.8
640	ADC Telecommunications	Telecommunications equipment (9578)	USA	47.60	-3.9	910	5.2	4.8
641	HCL Technologies	Computer services (9533)	India	47.57		1,053	4.5	16.2
641	Inverness Medical Innovations	Health care equipment & services (453)	USA	47.57	29.6	574	8.3	-20.2
643	Terex	Commercial vehicles & trucks (2753)	USA	47.54	32.1	6,250	0.8	10.6
644	Investment Technology	Other financials (877)	USA	47.40	21.4	500	9.5	25.8
645	McCormick	Food producers (357)	USA	47.33	17.3	1,995	2.4	12.4
646	Salix Pharmaceuticals	Biotechnology (4573)	USA	47.22	44.1	161	29.3	5.0
647	F5 Networks	Internet (9535)	USA	47.21	40.4	360	13.1	18.9
648	Cabot	Chemicals (135)	USA	47.19	19.0	1,789	2.6	7.1
649	Tokyo Seimitsu	Semiconductors (9576)	Japan	46.76	-3.5	614	7.6	13.4
650	Alliant Techsystems	Aerospace & defence (271)	USA	46.74	11.0	2,853	1.6	10.3
651	ConAgra Foods	Food producers (357)	USA	46.72	26.3	8,725	0.5	10.7
652	Orbotech	Electronic equipment (2737)	Israel	46.46	12.3	247	18.8	-2.4
653	Roper Industries	Electronic equipment (2737)	USA	46.44	15.9	1,438	3.2	20.7
654	Meiji Dairies	Food producers (357)	Japan	46.35	2.3	4,303	1.1	3.1
655	Daifuku	Industrial machinery (2757)	Japan	46.31	-0.9	1,425	3.2	8.1
656	Nektar Therapeutics	Biotechnology (4573)	USA	46.27	-27.3	187	24.7	-42.2
657	BJ Services	Oil equipment, services & distribution (57)	USA	46.19	5.7	3,285	1.4	23.8
658	IDEXX Laboratories	Health care equipment & services (453)	USA	46.06	25.6	631	7.3	14.7
659	Tokai Rubber Industries	Chemicals (135)	Japan	45.99	5.0	1,716	2.7	8.4
660	Extreme Networks	Telecommunications equipment (9578)	USA	45.88	8.3	234	19.6	-6.4
661	Perrigo	Pharmaceuticals (4577)	USA	45.47	27.1	990	4.6	5.1
662	Swisscom	Fixed line telecommunications (653)	Switzerland	45.31	59.5	6,699	0.7	23.0
663	FEI	Semiconductors (9576)	USA	45.17	14.8	405	11.2	8.6
664	CNOOC	Oil & gas producers (53)	Hong Kong	45.16	27.9	8,495	0.5	46.3
665	Respironics (now part of Philips Electronics, The Netherlands)	Health care equipment & services (453)	USA	45.06	11.7	817	5.5	14.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
665	Mitsui Mining & Smelting	Industrial metals (175)	Japan	45.06	22.3	3,622	1.2	8.1
667	Nalco	Gas, water & multiutilities (757)	USA	45.01	6.8	2,676	1.7	12.1
668	Buhler	Industrial machinery (2757)	Switzerland	44.95	14.3	1,071	4.2	7.2
669	Intermec	Computer hardware (9572)	USA	44.88	-9.4	581	7.7	4.1
670	TriQuint Semiconductor	Semiconductors (9576)	USA	44.71	30.0	325	13.8	3.4
671	Woodward Governor	Electrical components & equipment (2733)	USA	44.66	9.1	713	6.3	12.8
672	Varian	Health care equipment & services (453)	USA	44.57	9.1	630	7.1	10.0
673	Parexel International	Biotechnology (4573)	USA	44.32	15.3	628	7.1	6.4
674	Sigmatel (now part of Freescale Semiconductor)	Semiconductors (9576)	USA	44.31	-28.5	87	50.9	-34.5
675	Daiwa House Industry	Household goods (372)	Japan	44.22	16.7	9,909	0.4	4.9
676	Taiwan Power	Electricity (753)	Taiwan	44.11	-0.9	8,475	0.5	-5.0
676	Genesis Microchip (now part of STMicroelectronics, The Netherlands)	Semiconductors (9576)	USA	44.11	40.5	147	30.0	-66.0
678	Komag (now WD Media) (now part of Western Digital)	Computer hardware (9572)	USA	43.90	31.3	641	6.8	15.9
679	SPSS	Software (9537)	USA	43.69	-0.7	199	22.0	17.1
680	Bharat Heavy Electricals	Industrial machinery (2757)	India	43.67	65.9	2,991	1.5	20.0
681	Actel	Semiconductors (9576)	USA	43.59	11.9	135	32.3	-5.9
682	Japan Radio	Electronic equipment (2737)	Japan	43.54	-45.7	776	5.6	3.2
683	Creative Technology	Computer hardware (9572)	Singapore	43.53	-17.5	626	7.0	5.6
684	Alexion Pharmaceuticals	Biotechnology (4573)	USA	43.30	-22.5	49	88.4	-138.8
685	Ulvac	Electronic equipment (2737)	Japan	43.27	10.7	1,301	3.3	6.9
686	Nippon Paint	Chemicals (135)	Japan	43.20	3.4	1,383	3.1	5.4
687	Owens Corning	Construction & materials (235)	USA	43.09	5.0	3,833	1.1	2.9
688	NACCO Industries	General industrials (272)	USA	43.02	5.2	2,464	1.7	3.9
689	Bucher Industries	Commercial vehicles & trucks (2753)	Switzerland	42.96	8.9	1,485	2.9	9.3
690	Albemarle	Chemicals (135)	USA	42.88	35.4	1,598	2.7	14.6
691	Par Pharmaceutical Companies	Pharmaceuticals (4577)	USA	42.71	0.0	496	8.6	1.0
692	Pall	Industrial machinery (2757)	USA	42.69	8.8	1,539	2.8	13.3
693	Amphenol	Electrical components & equipment (2733)	USA	42.68	16.1	1,950	2.2	18.8
694	Showa	Automobiles & parts (335)	Japan	42.62	-6.4	1,603	2.7	6.1
695	Chemtura	Chemicals (135)	USA	42.41	-5.3	2,685	1.6	2.2

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
695	MeadWestvaco	General industrials (272)	USA	42.41	-4.6	4,723	0.9	4.5
697	Nissin Kogyo	Automobiles & parts (335)	Japan	42.06	7.9	1,150	3.7	11.0
698	Kureha	Chemicals (135)	Japan	42.03	-7.3	895	4.7	6.7
699	Micro-Star International	Computer hardware (9572)	Taiwan	41.93	13.0	2,029	2.1	3.5
700	Roland	Electronic equipment (2737)	Japan	41.85	8.8	583	7.2	10.5
701	Veeco Instruments	Electronic equipment (2737)	USA	41.84	-1.2	275	15.2	-2.9
702	Vishay Intertechnology	Electrical components & equipment (2733)	USA	41.70	17.1	1,938	2.2	7.7
703	Nippon Paper	Forestry & paper (173)	Japan	41.65	-3.7	7,195	0.6	3.4
703	Steelcase	Household goods (372)	USA	41.65	37.8	2,340	1.8	5.9
705	Cheil Industries	Chemicals (135)	South Korea	41.61	41.6	2,078	2.0	8.3
706	Obayashi	Construction & materials (235)	Japan	41.59	-5.7	9,600	0.4	2.5
707	Wrigley Wm Jr	Food producers (357)	USA	41.58	13.3	3,686	1.1	18.3
708	Juki	Industrial machinery (2757)	Japan	41.57	23.6	860	4.8	9.7
709	Rinnai	Household goods (372)	Japan	41.50	0.0	1,304	3.2	3.0
710	Nice Systems	Software (9537)	Israel	41.47	31.5	354	11.7	6.2
711	Koc	General industrials (272)	Turkey	41.42	-39.2	30,007	0.1	6.8
712	Keyence	Electronic equipment (2737)	Japan	41.33	13.3	1,119	3.7	52.6
713	Yakult Honsha	Food producers (357)	Japan	41.30	-3.2	1,672	2.5	10.2
714	Teledyne Technologies	Aerospace & defence (271)	USA	40.83	13.7	1,110	3.7	10.0
714	Phonak (now Sonova)	Health care equipment & services (453)	Switzerland	40.83	7.2	648	6.3	25.9
716	FMC Technologies	Oil equipment, services & distribution (57)	USA	40.70	19.2	3,173	1.3	10.1
717	United Online	Internet (9535)	USA	40.66	12.3	351	11.6	17.9
718	Leapfrog Enterprises	Leisure goods (374)	USA	40.61	9.0	302	13.4	-23.2
719	Central Glass	Construction & materials (235)	Japan	40.59	8.2	1,177	3.4	8.9
720	Sigma-Aldrich	Chemicals (135)	USA	40.56	12.1	1,394	2.9	22.5
721	Isis Pharmaceuticals	Pharmaceuticals (4577)	USA	40.39	-9.8	48	84.1	-20.8
722	Cree	Semiconductors (9576)	USA	40.24	7.2	270	14.9	4.4
723	Pentair	Household goods (372)	USA	40.22	1.3	2,325	1.7	11.1
724	TiVo	Media (555)	USA	40.20	15.9	187	21.5	-13.4
725	Silicon Graphics	Computer hardware (9572)	USA	40.16	-29.8	311	12.9	-25.4
726	Retalix	Software (9537)	Israel	40.12	-2.8	151	26.6	-0.7
727	Ballard Power Systems	Automobiles & parts (335)	Canada	40.00	11.9	45	88.9	-113.3
727	Mercury Computer Systems	Computer hardware (9572)	USA	40.00	-4.4	153	26.1	-17.0
727	Kaken Pharmaceutical	Pharmaceuticals (4577)	Japan	40.00	8.0	468	8.5	10.5
727	DSP	Semiconductors (9576)	USA	40.00	23.0	170	23.5	-5.3
731	CSG Systems International	Software (9537)	USA	39.90	26.3	287	13.9	19.9
732	WMS Industries	Travel & leisure (575)	USA	39.74	18.6	369	10.8	13.8

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
733	Tokyo Ohka Kogyo	Chemicals (135)	Japan	39.72	14.2	624	6.4	11.4
734	Chugoku Electric Power	Electricity (753)	Japan	39.68	-2.5	6,585	0.6	7.7
735	Proton Holdings Berhad	Automobiles & parts (335)	Malaysia	39.63	-29.5	1,016	3.9	-14.2
736	Borland Software	Software (9537)	USA	39.53	-17.6	184	21.5	-22.8
737	Bruker	Health care equipment & services (453)	USA	39.51	18.5	375	10.5	9.3
737	Rigel Pharmaceuticals	Pharmaceuticals (4577)	USA	39.51	145.9	9	439.0	-600.0
739	OneSteel	Industrial metals (175)	Australia	39.46	19.9	2,583	1.5	7.7
740	Zebra Technologies	Computer hardware (9572)	USA	39.40	17.6	594	6.6	16.5
741	Mindspeed Technologies	Semiconductors (9576)	USA	39.29	-10.4	87	45.2	-14.9
742	Electric Power Development	Electricity (753)	Japan	39.28	-5.7	3,510	1.1	13.5
742	Disco	Semiconductors (9576)	Japan	39.28	1.0	528	7.4	21.0
744	West Japan Railway	Travel & leisure (575)	Japan	39.20	-5.4	7,732	0.5	10.9
745	Ishihara Sangyo Kaisha	Chemicals (135)	Japan	39.17	8.4	650	6.0	-7.5
746	Amada	Industrial machinery (2757)	Japan	39.01	20.2	1,606	2.4	15.7
747	Fiserv	Support services (279)	USA	38.99	-6.1	3,435	1.1	15.5
747	Reynolds American	Tobacco (378)	USA	38.99	-1.7	4,786	0.8	32.5
749	DnB NOR	Banks (835)	Norway	38.92	-3.1	3,980	1.0	47.2
750	China Motor	Automobiles & parts (335)	Taiwan	38.90	-15.7	625	6.2	2.6
751	Silicon Storage Technology	Semiconductors (9576)	USA	38.79	7.1	282	13.8	-13.1
752	Jack Henry & Associates	Software (9537)	USA	38.78	18.2	457	8.5	23.6
753	SEZ	Semiconductors (9576)	Switzerland	38.70	12.5	200	19.4	-4.5
753	ANSYS	Software (9537)	USA	38.70	12.5	264	14.7	33.0
755	Enzon Pharmaceuticals	Biotechnology (4573)	USA	38.65	29.8	127	30.4	0.8
756	Sanden	Industrial machinery (2757)	Japan	38.61	2.3	1,485	2.6	3.0
757	Cochlear	Health care equipment & services (453)	Australia	38.51	13.1	336	11.5	27.7
758	AvtoVAZ	Automobiles & parts (335)	Russia	38.49	10.3	5,131	0.8	5.3
759	Lexicon Pharmaceuticals	Biotechnology (4573)	USA	38.47	46.8	34	113.1	-126.5
760	AptarGroup	General industrials (272)	USA	38.21	16.0	1,294	3.0	11.2
761	Lite-On It	Computer hardware (9572)	Taiwan	37.96	78.4	1,178	3.2	2.5
762	Aastra Technologies	Telecommunications equipment (9578)	Canada	37.86	-8.4	420	9.0	7.4
763	Hutchinson Technology	Computer hardware (9572)	USA	37.79	4.4	490	7.7	-2.0
764	Sika	Chemicals (135)	Switzerland	37.64	19.8	2,763	1.4	11.3
765	Sekisui House	Household goods (372)	Japan	37.43	-1.2	9,772	0.4	6.8
766	Micrel	Semiconductors (9576)	USA	37.29	4.7	176	21.2	24.4
767	Geron	Biotechnology (4573)	USA	37.24	34.1	5	744.8	-640.0
768	Noritz	Household goods (372)	Japan	37.16	3.9	1,102	3.4	-0.3

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
769	Timken	Industrial machinery (2757)	USA	37.14	-9.3	3,581	1.0	6.2
770	Cardiome Pharma	Pharmaceuticals (4577)	Canada	37.07	45.3	3	1,235.7	-1,700.0
771	TPV Technology	Electronic equipment (2737)	Bermuda	37.05	5.4	5,783	0.6	3.0
772	Meidensha	General industrials (272)	Japan	36.99	10.0	1,189	3.1	2.6
773	Angiotech Pharmaceuticals	Pharmaceuticals (4577)	Canada	36.91	18.9	202	18.3	-13.9
774	deCODE genetics	Biotechnology (4573)	Iceland	36.81	-9.2	18	204.5	-388.9
775	Eltek	Telecommunications equipment (9578)	Norway	36.69	65.7	607	6.0	1.6
776	Neurochem (now BELLUS Health)	Biotechnology (4573)	Canada	36.68	-8.3	1	3,668.0	-5,900.0
777	Inspire Pharmaceuticals	Biotechnology (4573)	USA	36.52	29.3	33	110.7	-136.4
778	Acxiom	Support services (279)	USA	36.35	14.2	947	3.8	3.2
779	Aruze	Travel & leisure (575)	Japan	36.23	-8.6	218	16.6	33.5
780	Ametek	Electronic equipment (2737)	USA	36.18	25.9	1,462	2.5	17.9
781	Ichikoh Industries	Automobiles & parts (335)	Japan	35.99	6.7	738	4.9	-3.3
782	Secom	Support services (279)	Japan	35.97	44.7	3,898	0.9	15.5
783	Spirit Aerosystems	Aerospace & defence (271)	USA	35.77	-50.0	2,641	1.4	11.1
784	Speedel	Biotechnology (4573)	Switzerland	35.72	-18.5	2	1,786.0	-2,100.0
785	ACI Worldwide	Software (9537)	USA	35.63	27.8	250	14.3	0.8
786	Bally Technologies	Travel & leisure (575)	USA	35.51	15.1	467	7.6	10.1
787	Brooks Automation	Semiconductors (9576)	USA	35.37	-26.8	541	6.5	6.7
788	Blue Coat Systems	Software (9537)	USA	35.28	29.3	209	16.9	8.1
789	Tencent	Internet (9535)	China	35.22	26.5	358	9.8	39.7
790	Alvarion	Telecommunications equipment (9578)	Israel	35.15	32.4	162	21.7	-1.2
791	VTech	Telecommunications equipment (9578)	Hong Kong	35.09	13.5	1,062	3.3	13.5
792	JDA Software	Software (9537)	USA	35.00	-9.0	256	13.7	12.1
793	Ariba	Computer services (9533)	USA	34.99	2.1	206	17.0	-9.2
794	Msc Software	Software (9537)	USA	34.96	18.2	169	20.7	0.6
795	Hillenbrand Industries (now Hill-Rom)	Health care equipment & services (453)	USA	34.95	21.4	1,384	2.5	13.7
796	Savient Pharmaceuticals	Biotechnology (4573)	USA	34.79	117.3	10	347.9	-470.0
797	Gentex	Automobiles & parts (335)	USA	34.69	21.4	447	7.8	23.5
798	Kulicke & Soffa	Semiconductors (9576)	USA	34.67	34.6	479	7.2	5.2
799	Tandberg	Telecommunications equipment (9578)	Norway	34.61	34.9	431	8.0	23.2
800	Kinetic Concepts	Health care equipment & services (453)	USA	34.56	37.7	1,101	3.1	23.2
801	Advanced Energy Industries	Electrical components & equipment (2733)	USA	34.47	12.4	263	13.1	12.2
802	Biomarin Pharmaceutical	Biotechnology (4573)	USA	34.43	4.9	83	41.5	-21.7
803	ResMed	Health care equipment & services (453)	USA	34.27	34.7	490	7.0	12.7
804	LTX	Semiconductors (9576)	USA	34.23	-7.0	101	33.9	-6.9

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
805	Verenium	Biotechnology (4573)	USA	34.20	27.4	30	114.0	-246.7
805	Ashland	Chemicals (135)	USA	34.20	4.2	5,325	0.6	3.2
805	NOVA Chemicals	Chemicals (135)	Canada	34.20	-1.9	4,604	0.7	8.3
808	Infosys Technologies	Software (9537)	India	34.19	28.0	2,897	1.2	27.8
809	Cabot Microelectronics	Semiconductors (9576)	USA	34.18	4.0	231	14.8	13.0
810	Gigabyte Technology	Computer hardware (9572)	Taiwan	34.09	24.5	1,095	3.1	2.8
811	Church & Dwight	Personal goods (376)	USA	34.06	11.4	1,519	2.2	14.1
812	NOF	Food producers (357)	Japan	34.03	1.4	920	3.7	7.4
813	Universal Scientific Industrial	Computer hardware (9572)	Taiwan	33.82	16.1	1,373	2.5	3.4
814	Novatek Microelectronics	Electronic equipment (2737)	Taiwan	33.78	17.7	762	4.4	20.7
815	VeriFone	Computer hardware (9572)	USA	33.76	15.6	397	8.5	18.6
816	Nippon Light Metal	Industrial metals (175)	Japan	33.70	7.2	3,785	0.9	4.5
817	Xoma	Biotechnology (4573)	Bermuda	33.64	19.4	58	58.0	-3.4
818	Cae	Software (9537)	Canada	33.54	12.8	987	3.4	13.3
819	SAIC	Computer services (9533)	USA	33.51	44.1	6,184	0.5	7.5
820	Suzuken	Food & drug retailers (533)	Japan	33.43	-12.3	8,907	0.4	2.1
820	Makita	Household goods (372)	Japan	33.43	13.1	1,714	2.0	17.3
822	Intuitive Surgical	Health care equipment & services (453)	USA	33.42	64.1	411	8.1	34.3
823	Ford Otomotiv	Automobiles & parts (335)	Turkey	33.36	6.2	4,219	0.8	9.1
824	Advanced Digital Broadcast	Electronic equipment (2737)	Switzerland	33.21	2.7	203	16.4	1.0
825	Dentsply International	Health care equipment & services (453)	USA	33.17	9.2	1,375	2.4	17.7
826	Take-Two Interactive Software	Software (9537)	USA	33.14	-82.7	672	4.9	-12.8
827	Nippon Soda	Chemicals (135)	Japan	33.11		890	3.7	4.6
827	ev3	Health care equipment & services (453)	USA	33.11	81.1	194	17.1	-59.3
829	Sumitomo Metal Mining	Mining (177)	Japan	33.01	1.8	5,919	0.6	21.5
830	Analogic	Electronic equipment (2737)	USA	33.00	-8.8	233	14.2	0.4
830	Richemont	General retailers (537)	Switzerland	33.00	-10.8	5,302	0.6	32.4
832	Komori	Industrial machinery (2757)	Japan	32.97	11.5	869	3.8	9.6
833	Crown	General industrials (272)	USA	32.83	14.3	5,285	0.6	5.4
834	Aspreva Pharmaceuticals (now part of Galenica, Switzerland)	Pharmaceuticals (4577)	Canada	32.80	58.8	147	22.3	59.9
835	AO Smith	Electronic equipment (2737)	USA	32.69	13.0	1,581	2.1	5.4
836	Zarlink Semiconductor	Semiconductors (9576)	Canada	32.63	45.9	126	25.9	-23.8
837	Snap-On	Household goods (372)	USA	32.56	4.2	1,993	1.6	11.1
838	Ixia	Computer services (9533)	USA	32.43	9.1	119	27.3	-1.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
839	Encysive Pharmaceuticals (now part of Pfizer)	Pharmaceuticals (4577)	USA	32.35	-25.1	25	129.4	-244.0
840	Vanda Pharmaceuticals	Biotechnology (4573)	USA	32.31	-9.3	0		
841	EMS-Chemie	Chemicals (135)	Switzerland	32.28	6.9	938	3.4	17.8
842	Kansai Paint	Chemicals (135)	Japan	32.27	-0.1	1,416	2.3	10.2
843	Daewoo Shipbuilding & Marine	Commercial vehicles & trucks (2753)	South Korea	32.21	24.9	5,191	0.6	4.8
844	Cirrus Logic	Semiconductors (9576)	USA	32.20	7.1	124	26.0	-8.1
845	Taiheiyo Cement	Construction & materials (235)	Japan	32.09	-7.9	5,759	0.6	7.0
846	QLT	Pharmaceuticals (4577)	Canada	31.97	-16.5	89	35.9	-116.9
847	K-V Pharmaceutical	Biotechnology (4573)	USA	31.90	48.2	412	7.7	21.6
848	Manhattan Associates	Software (9537)	USA	31.87	12.4	231	13.8	12.6
849	Anadigics	Semiconductors (9576)	USA	31.83	30.6	158	20.1	0.6
850	Move	Internet (9535)	USA	31.71	22.0	196	16.2	-2.6
851	ION Geophysical	Electronic equipment (2737)	USA	31.67	41.4	488	6.5	8.8
852	Shikoku Electric Power	Electricity (753)	Japan	31.65	-0.6	3,545	0.9	10.8
853	Radisys	Computer hardware (9572)	USA	31.63	11.5	222	14.2	-8.6
854	Heiwa	Travel & leisure (575)	Japan	31.59	-1.7	469	6.7	4.3
855	Aspen Technology	Software (9537)	USA	31.58	-32.5	233	13.6	16.3
856	Nihon Unisys	Computer services (9533)	Japan	31.54	-15.7	1,882	1.7	2.0
857	Sycamore Networks	Telecommunications equipment (9578)	USA	31.40	46.3	107	29.3	-38.3
858	Singapore Technologies Engineering	Aerospace & defence (271)	Singapore	31.34	12.9	2,400	1.3	12.5
859	Sulzer	Industrial machinery (2757)	Switzerland	31.30	29.5	2,137	1.5	10.7
860	Nichias	General industrials (272)	Japan	31.20	0.9	1,008	3.1	8.5
861	Rockwood	Chemicals (135)	USA	31.12	9.6	2,289	1.4	11.4
862	Nisshin Seifun	Food producers (357)	Japan	31.05	-4.2	2,560	1.2	4.8
863	Archer Daniels Midland	Food producers (357)	USA	30.78	0.0	30,107	0.1	6.3
864	Maxygen	Biotechnology (4573)	USA	30.77	86.6	16	192.3	-262.5
864	Mentor	Health care equipment & services (453)	USA	30.77	28.5	255	12.1	21.2
866	Nisshin Steel	Industrial metals (175)	Japan	30.72	22.1	3,926	0.8	9.5
867	Advent Software	Software (9537)	USA	30.69	23.4	147	20.9	5.4
868	JSC Sitronics	Telecommunications equipment (9578)	Russia	30.66	64.8	1,108	2.8	-10.6
869	Corel	Software (9537)	Canada	30.58	72.8	171	17.9	2.9
870	Cipla	Pharmaceuticals (4577)	India	30.49	13.1	597	5.1	21.8
871	Arqule	Biotechnology (4573)	USA	30.48	9.2	6	508.0	-683.3
872	Trident Microsystems	Semiconductors (9576)	USA	30.45	31.7	185	16.5	15.7
873	Sonic Solutions	Software (9537)	USA	30.44	0.0	91	33.5	-8.8
874	Hologic	Health care equipment & services (453)	USA	30.43	57.3	505	6.0	20.0

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
875	Weichai Power	Automobiles & parts (335)	China	30.27	91.1	2,568	1.2	12.7
876	Stoneridge	Automobiles & parts (335)	USA	30.23	8.2	497	6.1	6.0
877	Cytac (now part of Hologic)	Health care equipment & services (453)	USA	30.19	36.5	416	7.3	33.2
878	Secure Computing	Software (9537)	USA	30.09	29.1	163	18.5	-12.3
879	Thoratec	Health care equipment & services (453)	USA	29.98	10.0	161	18.6	-1.2
880	Hercules	Chemicals (135)	USA	29.96	12.9	1,461	2.1	9.7
880	Armstrong World Industries	Construction & materials (235)	USA	29.96		2,469	1.2	8.7
882	Ushio	Electronic equipment (2737)	Japan	29.90	5.1	928	3.2	15.8
883	American Medical Systems	Health care equipment & services (453)	USA	29.63	27.9	318	9.3	14.8
884	Tsumura	Pharmaceuticals (4577)	Japan	29.57	-0.5	559	5.3	15.9
885	Terrestar	Mobile telecommunications (657)	USA	29.46	308.0	0		
886	Semtech	Semiconductors (9576)	USA	29.45	4.4	195	15.1	15.4
887	Bookham	Telecommunications equipment (9578)	USA	29.43	1.0	139	21.2	-41.0
888	Lennox International	Construction & materials (235)	USA	29.41	1.9	2,565	1.1	7.1
889	Braskem	Chemicals (135)	Brazil	29.40	72.7	6,793	0.4	8.4
890	Samsung Techwin	Leisure goods (374)	South Korea	29.38	-59.3	2,507	1.2	7.2
891	Toagosei	Chemicals (135)	Japan	29.35	-4.3	996	2.9	6.7
892	Harmonic	Telecommunications equipment (9578)	USA	29.34	8.7	213	13.8	6.1
893	Innolux Display	Electronic equipment (2737)	Taiwan	29.28	-16.7	3,289	0.9	11.2
894	SeaChange International	Software (9537)	USA	29.21	-7.4	123	23.7	-4.9
895	Aztecsoft	Software (9537)	India	29.20	47.5	45	64.9	15.6
896	Nuvelo	Biotechnology (4573)	USA	29.17	-52.3	32	91.2	-40.6
897	Newport	Electronic equipment (2737)	USA	29.12	1.4	304	9.6	5.9
897	Nihon Kohden	Health care equipment & services (453)	Japan	29.12	-1.2	592	4.9	8.3
897	Rambus	Semiconductors (9576)	USA	29.12		134	21.7	-20.1
900	Aloka	Health care equipment & services (453)	Japan	29.07	3.4	297	9.8	2.4
900	Arbitron	Media (555)	USA	29.07	-3.9	241	12.1	17.8
902	Geberit	Construction & materials (235)	Switzerland	29.06	8.6	1,271	2.3	26.4
903	Datascope	Health care equipment & services (453)	USA	28.89	13.2	259	11.2	5.0
904	Siegfried	Pharmaceuticals (4577)	Switzerland	28.86	41.6	205	14.1	9.8
905	Microsemi	Semiconductors (9576)	USA	28.84	110.7	302	9.5	4.0
906	Herman Miller	Household goods (372)	USA	28.80	22.8	1,312	2.2	10.2
906	Gemstar-TV Guide International (now part of Macrovision)	Media (555)	USA	28.80	37.1	429	6.7	11.2
908	Dalsa	Electronic equipment (2737)	Canada	28.64	24.0	125	22.9	-1.6
909	Ezaki Glico	Food producers (357)	Japan	28.63	-0.5	1,652	1.7	2.8

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
910	Israel	General industrials (272)	Israel	28.61	3.2	7,804	0.4	7.2
911	Amkor Technology	Semiconductors (9576)	USA	28.49	7.6	1,874	1.5	14.2
912	China Steel	Industrial metals (175)	Taiwan	28.17	4.2	4,385	0.6	29.5
913	QAD	Software (9537)	USA	28.09	2.6	180	15.6	1.7
914	Weg	Electrical components & equipment (2733)	Brazil	28.05	16.6	1,355	2.1	14.7
915	Silicon Integrated Systems	Semiconductors (9576)	Taiwan	27.93	20.8	137	20.4	-32.1
916	Audiocodes	Telecommunications equipment (9578)	Israel	27.84	14.9	108	25.8	-3.7
917	Sanyo Chemical Industries	Chemicals (135)	Japan	27.80	5.2	749	3.7	5.2
918	Seikagaku	Pharmaceuticals (4577)	Japan	27.78	30.1	149	18.6	22.8
919	GS Yuasa	Electrical components & equipment (2733)	Japan	27.77	4.2	1,596	1.7	-0.4
920	Nexen	Oil & gas producers (53)	Canada	27.72	-24.5	4,534	0.6	31.3
921	Technitrol	Electrical components & equipment (2733)	USA	27.63	2.0	702	3.9	7.1
922	ISEKI	Commercial vehicles & trucks (2753)	Japan	27.54	6.9	941	2.9	1.2
923	Intevac	Electronic equipment (2737)	USA	27.45	51.9	148	18.5	13.5
923	Amcor	General industrials (272)	Australia	27.45	23.5	6,536	0.4	5.1
925	Nippon Electric Glass	Electronic equipment (2737)	Japan	27.44	69.6	2,060	1.3	19.2
926	Flowserve	Industrial machinery (2757)	USA	27.36	34.7	2,574	1.1	11.1
926	Novelis (now part of Hindalco Industries, India)	Industrial metals (175)	Canada	27.36	-2.4	6,736	0.4	-0.9
928	Nipro	Health care equipment & services (453)	Japan	27.31	18.6	1,129	2.4	2.7
929	Hyundai Engineering & Construction	Construction & materials (235)	South Korea	27.26	-29.9	4,128	0.7	7.2
929	Cooper Companies	Health care equipment & services (453)	USA	27.26	15.4	650	4.2	4.8
931	Asyst Technologies	Semiconductors (9576)	USA	27.24	15.2	313	8.7	-1.9
932	Adaptec	Computer hardware (9572)	USA	27.23	-29.6	114	23.9	-28.1
933	AEterna Zentaris	Biotechnology (4573)	Canada	27.20	44.9	31	87.7	-80.6
934	Arpida	Biotechnology (4573)	Switzerland	27.17	-30.5	<0.5		
935	Siliconware Precision Industries	Semiconductors (9576)	Taiwan	27.16	7.9	1,396	1.9	25.7
936	Entegris	Semiconductors (9576)	USA	27.15	2.2	432	6.3	6.5
937	WebSense	Software (9537)	USA	27.14	75.1	145	18.7	-3.4
938	Kurita Water Industries	Support services (279)	Japan	27.07	5.0	1,207	2.2	12.3
939	Ariad Pharmaceuticals	Biotechnology (4573)	USA	27.06	-8.6	2	1,353.0	-2,100.0
940	CuraGen	Biotechnology (4573)	USA	27.05	3.0	16	169.1	-268.8
941	Medicis Pharmaceutical	Pharmaceuticals (4577)	USA	26.97	-75.6	318	8.5	21.1
942	Metall Zug	Household goods (372)	Switzerland	26.96	21.0	388	6.9	14.7
942	SonicWALL	Telecommunications equipment (9578)	USA	26.96	17.1	136	19.8	-0.7

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
944	Synaptics	Software (9537)	USA	26.94	11.4	182	14.8	11.0
945	Microstrategy	Software (9537)	USA	26.89	14.2	240	11.2	24.6
946	MEMC Electronic Materials	Semiconductors (9576)	USA	26.88	9.7	1,314	2.0	44.2
947	Dowa	Mining (177)	Japan	26.84	17.2	2,808	1.0	10.3
948	Aselsan Electronic Industries	Aerospace & defence (271)	Turkey	26.81	62.7	390	6.9	15.6
949	Digital River	Internet (9535)	USA	26.80	20.8	239	11.2	21.3
950	Yum! Brands	Travel & leisure (575)	USA	26.68	18.2	7,124	0.4	13.0
951	Riso Kagaku	Electronic office equipment (9574)	Japan	26.65	-2.1	556	4.8	6.3
952	Sierra Wireless	Telecommunications equipment (9578)	Canada	26.59	14.1	301	8.8	8.6
953	Scotts Miracle-Gro	Household goods (372)	USA	26.54	10.5	1,964	1.4	9.7
954	Pixelworks	Semiconductors (9576)	USA	26.53	-32.0	72	36.8	-30.6
955	Unicharm	Personal goods (376)	Japan	26.52	7.8	1,848	1.4	9.4
955	Galenica	Pharmaceuticals (4577)	Switzerland	26.52	-5.7	1,528	1.7	6.2
957	Daido Steel	Industrial metals (175)	Japan	26.41	20.6	3,200	0.8	6.7
958	AviChina Industry & Technology	Automobiles & parts (335)	China	26.35	6.7	1,602	1.6	-2.1
959	Kose	Personal goods (376)	Japan	26.32	4.4	1,080	2.4	8.1
960	X-Rite	Electronic equipment (2737)	USA	26.25	30.0	171	15.4	6.4
961	Hannstar Display	Leisure goods (374)	Taiwan	26.22	-35.3	1,653	1.6	12.6
961	COHU	Semiconductors (9576)	USA	26.22	-1.9	165	15.9	1.8
963	Imation	Computer hardware (9572)	USA	26.13	-23.6	1,410	1.9	-1.9
964	Grant Prideco (now part of National Oilwell)	Oil equipment, services & distribution (57)	USA	26.11	8.7	1,449	1.8	36.4
965	Sirius Satellite Radio (now Sirius XM Radio)	Media (555)	USA	26.05	-18.0	631	4.1	-55.6
966	Computershare	Other financials (877)	Australia	26.00	-20.1	843	3.1	22.2
967	Cray	Computer hardware (9572)	USA	25.91	30.5	127	20.4	-4.7
968	Electro Scientific Industries	Electronic equipment (2737)	USA	25.79	11.5	172	15.0	9.3
969	Packeteer (now part of Blue Coat Systems)	Telecommunications equipment (9578)	USA	25.68	22.5	99	25.9	-16.2
970	Mabuchi Motor	Electrical components & equipment (2733)	Japan	25.64	2.7	659	3.9	12.1
971	Interwoven	Software (9537)	USA	25.61	6.8	154	16.6	6.5
972	Westinghouse Air Brake Technologies	Commercial vehicles & trucks (2753)	USA	25.58	14.3	930	2.8	13.2
973	Eizo Nanao	Computer hardware (9572)	Japan	25.57	9.7	585	4.4	12.6
974	Epicor Software	Software (9537)	USA	25.56	9.7	294	8.7	9.9
975	Sherwin-Williams	Construction & materials (235)	USA	25.49	1.0	5,475	0.5	12.1
976	Solutia	Chemicals (135)	USA	25.31	-2.6	2,447	1.0	-0.8
977	Steris	Health care equipment & services (453)	USA	25.25	9.8	865	2.9	9.8
978	Ferro	Chemicals (135)	USA	25.24	-13.4	1,508	1.7	-2.2

				R&D Investment		Net Sales	R&D/Net Sales ratio	Operating Profit
Rank	Company	ICB Sector	Country	2007	change 07/06	2007	2007	2007
				€m	%	€m	%	% of Net Sales
979	Novatel Wireless	Computer hardware (9572)	USA	25.21	23.6	294	8.6	12.6
980	Bluescope Steel	Industrial metals (175)	Australia	25.04	46.8	5,352	0.5	11.6
981	MDS	Health care equipment & services (453)	Canada	24.95	38.5	904	2.8	-2.3
982	Donaldson	Industrial machinery (2757)	USA	24.94	7.6	1,312	1.9	11.4
983	Benesse	Support services (279)	Japan	24.90	29.9	2,171	1.1	8.6
984	Jabil Circuit	Electrical components & equipment (2733)	USA	24.88	4.0	8,406	0.3	1.4
985	TravelSky Technology	Telecommunications equipment (9578)	China	24.72	12.8	187	13.2	34.8
986	Manitowoc	Commercial vehicles & trucks (2753)	USA	24.69	15.7	2,739	0.9	12.7
987	Nabtesco	Industrial machinery (2757)	Japan	24.64	10.7	988	2.5	10.6
988	Brady	Electronic equipment (2737)	USA	24.59	18.1	932	2.6	12.7
989	Albany International	Industrial machinery (2757)	USA	24.55	13.3	748	3.3	3.2
990	Viropharma	Biotechnology (4573)	USA	24.53	87.1	139	17.6	56.8
990	Micros Systems	Computer hardware (9572)	USA	24.53	17.0	537	4.6	14.3
992	Viasys Healthcare (now part of Cardinal Health)	Health care equipment & services (453)	USA	24.51	11.0	418	5.9	8.4
993	Gardner Denver	Industrial machinery (2757)	USA	24.49	9.2	1,278	1.9	15.7
994	Kemet	Electrical components & equipment (2733)	USA	24.42	7.0	581	4.2	-1.2
995	Neurogen	Biotechnology (4573)	USA	24.37	-29.5	7	348.1	-357.1
996	ConjuChem Biotechnologies	Biotechnology (4573)	Canada	24.28	15.7	<0.5		
996	McDermott International	Oil equipment, services & distribution (57)	USA	24.28	89.8	3,852	0.6	12.5
998	Shanghai Electric	Industrial machinery (2757)	China	24.26	59.0	3,995	0.6	8.4
999	Nordson	Industrial machinery (2757)	USA	24.23	44.7	680	3.6	15.7
1000	Hexcel	Aerospace & defence (271)	USA	24.21	16.5	878	2.8	8.1

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Abstract

This report presents the results of the 2008 edition of the "EU Industrial R&D Investment Scoreboard" (Scoreboard). It provides information on the 1000 EU companies and 1000 non-EU companies investing the largest sums in R&D. The Scoreboard includes R&D figures along with other economic and financial data from the last four financial years. The report includes a discussion on the key figures of the world's top R&D investors. It examines overall levels of R&D, the performance of the EU companies, and the main changes that took place in the last five years. The performance of individual companies among the top R&D investors, in particular those undergoing significant R&D growth is outlined. Moreover, an overview of the company data aggregated by industrial sectors and world regions, with comparisons between the EU companies and their main competitors is included.